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The Cost of Change

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The Cost of Change

The United States government needs to produce policy focused on increasing development and promoting research regarding the improvement of renewable energy industry rather than continuing the consumption of fossil fuels under the guise of clean burning fuels. As the dust from the 2014 midterm elections settles, the GOP has secured control in congress by taking the majority in the senate. It's unclear what the future ramifications on energy and environmental policy will be. It is entirely possible that Congress will push policy pursuing energy security by embracing domestic fossil fuels.

The EIA defines Energy security as the uninterrupted availability of energy sources at an affordable price. How can a finite fuel source responsible for considerable long-term damage to the environment be considered a secure source of energy? How long can our energy sector be considered secure if its not sustainable? Is there place for fossil fuels in a sustainable energy sector?

Extraction methods such as hydraulic fracturing has been charged as a major source of groundwater contamination, which is probably the most important source of fresh water available—especially as global ice coverage continues to fall. Despite the environmental concerns of extraction, natural gas is advertised as a clean burning fuel (which it is, relative to oil and coal). There are solutions to reduce emissions of fossil fuels but these methods continue to be expensive and are difficult to commercialize. Meanwhile renewable energy continues to take steps the necessary towards becoming mainstream sources of energy. In fact the National Renewable Energy Laboratory believes that renewables could easily supply 80% of the required energy needs of America by 2050.

The International Panel on Climate Change (IPCC) has recently released the fifth assessment of Global Climate Change, the report states with 95% certainty that the current change in climate has indeed been accelerated by human activities. The world's energy sector is a main contributor of the greenhouse gases that drive climate change. Pursuing fossil fuel sources has already taken America to hostile regions of the world and while most of the energy used in America comes from domestic sources we still are involved with the politics of the Middle East and northern Africa as a result of the pursuit of energy security.

Scientists have recorded a significant loss in average sea ice levels in the Arctic. This loss of ice poses to have major implications in the future of global energy sources as the arctic holds a substantial source of untapped fossil fuels and minerals

underneath the ice. The United States, Greenland, Canada, Norway, and Russia are the five countries that border the Arctic. With the exception of Russia all of these countries are nation states of NATO a military allegiance. Tension already exists between Russia and NATO due to Russia's actions in Ukraine, but no actions are serious enough to trigger war. However, Russia has stressed the point that the Arctic is for Russia and no one else. This attitude could be of concern as nations begin to extract resources from the Arctic. But with the potential of renewables to replace fossil fuels why take the chance?

America spent over 100 Billion dollars in 2012 mitigating the effects of drought and hurricane Sandy. While no one can say how severe natural disasters will be in the future as the world continues to warm. What is known is that the range of severity will increase. Which means the possibility exist that future disaster can be worse than what we see today. 2012 should be used as a model year for the future. The threat of anthropogenic climate change is real, Americans are major contributors to climate change which is why we should do everything we can to make sure that future generations do not have to pay for our inaction. One can argue that the United States is working towards implementing more renewable sources. Both individual states and the EPA have been active in finding solutions. There is however, an opportunity in climate change that America has effectively squandered. At some point in the future renewable energy will compete with fossil fuels in the energy market. America is one of the few countries that could utilize vast resources and begin creating an environment, in which the renewable industry can thrive. Only then will the United States be in a position to create a renewable energy export. China is well aware of the potential benefits of being the first country to start exporting affordable renewable energy technology and has taken drastic measures to make sure its China selling solar panels to America and not the other way around. There is no denying the high upfront financial cost of investing in renewable energy sources but America should be willing to bear the financial cost of transition now so to avoid the unknown social costs of the future.