Exploring the Dangers of The *Keep It In The Ground* Campaign

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IER INSTITUTE FOR ENERGY RESEARCH

Executive Summary

The United States of America has the largest combined natural gas, oil, and coal resources in the world.[1] We are the largest producers of natural gas and oil in the world,[2] and we have the largest coal reserves of any country. But a network of activists wants to deny Americans access to these affordable, reliable energy resources.

The rallying cry for these activists is *keep it in the ground*, and they are working to stop all natural gas, oil, and coal production in the U.S. — and, ultimately, throughout the the rest of the world. The *keep it in the ground* campaign is a dangerous attempt to restrict Americans' freedom by reducing access to affordable, reliable energy.

This report examines the top reasons why everyone should be concerned about the *keep it in the ground* campaign. These reasons are organized into five overarching themes:

- *Keep it in the ground* policies trade what works for what doesn't
- The *keep it in the ground* campaign hurts our economy
- The *keep it in the ground* campaign imperils our health and well-being
- The *keep it in the ground* campaign threatens our national security
- *Keep it in the ground* policies are already underway, and more threats are on the horizon

In addition to exposing the dangers of the *keep it in the ground* campaign, this report shows the economic and societal benefits of utilizing America's vast energy resources.

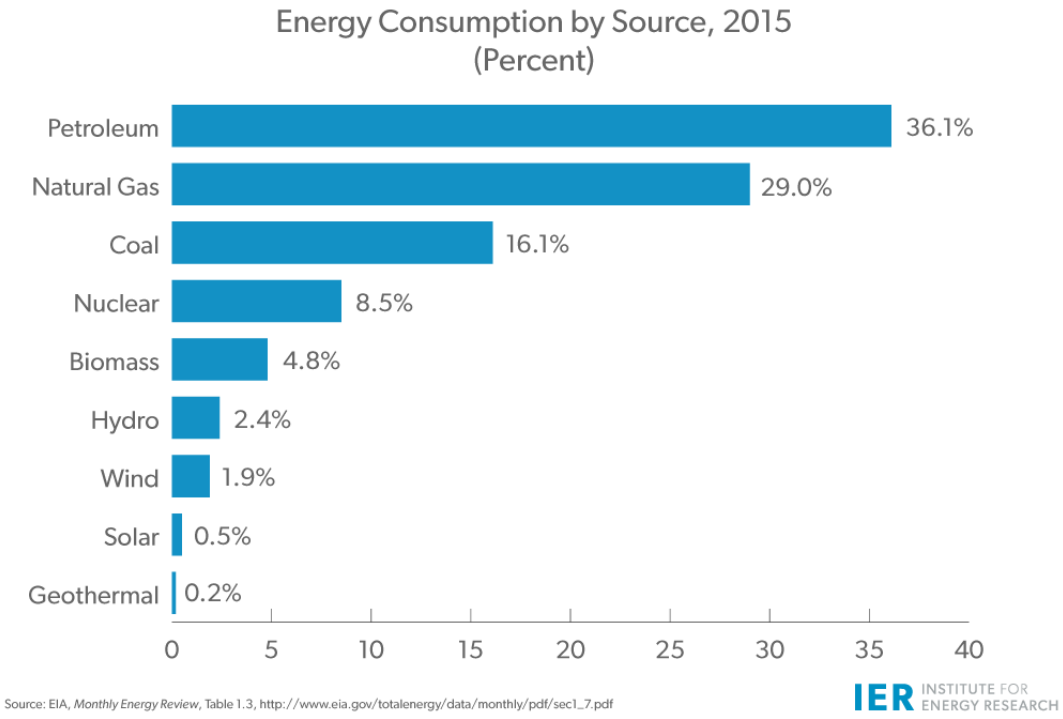
The conclusion is clear: America's freedom and prosperity are threatened by this radical campaign. It's not too late to reverse the early steps taken to advance this campaign, but a course correction is needed soon.

Keep It In The Ground Policies Trade What Works for What Doesn't

With vast natural gas, oil, and coal resources, the U.S. is one of the most energy-rich countries in the world. These three resources make up the majority of our country's energy consumption because they are affordable, reliable, and abundant. However, the keep it in the ground campaign wants to prohibit the use of these energy resources and increase our reliance on expensive, unreliable wind and solar power.

The *keep it in the ground* campaign is an attack on the most used energy resources. In 2015, more than 81 percent of energy consumption in the U.S. came from petroleum, natural gas, and coal.[3]

These are the sources the *keep it in the ground* campaign are targeting first. If the *keep it in the ground* campaign is in favor of any energy sources, it is wind and solar, which produced 1.9 percent and 0.5 percent of the energy consumed in 2015.



The *keep it in the ground* campaign wants to abandon America's most abundant and efficient energy resources. The U.S. has the largest combined natural gas, oil, and coal resources in the world. Ten years ago, many people thought we were running out of natural gas, oil, and coal. But now that it is obvious the U.S. and the world possess massive energy resources, the *keep it in the ground* campaign is trying to restrict access to these plentiful resources.

At our current rates of consumption, the U.S. has enough technically recoverable oil to fuel our needs for more than 250 years, enough natural gas for nearly 90 years, and enough coal for nearly 600 years.[4]

Also, it's likely that these are conservative estimates. When people have been allowed to look for resources, they frequently find more—much more. For example, in 1995, the U.S. Geological Service thought the Bakken formation held 151 million barrels of technically recoverable oil. But in 2008, after some of the impact of hydraulic fracturing and directional drilling were included in the USGS's assessment, the estimate of recoverable oil in the Bakken jumped 25-fold.[5] Then, the estimate doubled again — after USGS considered the technological progress that occurred between 2008 and 2013.[6]

The reality is that the U.S. has massive natural gas, oil, and coal resources. The *keep it in the ground* activists want to make these resources off limits and discontinue any search for additional resources. They understand that America is resource rich, but they would rather concentrate control over these resources in the hands of Washington bureaucrats instead of individual Americans.

There's no economically viable replacement. Natural resources such as natural gas, oil, and coal are heavily relied on to power our economy, heat our homes, and transport our goods because they are both affordable and reliable. Replacing these energy sources is an expensive proposition, as we've seen many Environmental Protection Agency (EPA) regulations force coal plants to prematurely retire. The Mercury and Air Toxics rule costs over $10 billion annually, and the regulation of carbon dioxide from power plants could cost as much as $39 billion annually.[7]

The reason these rules are so expensive is that implementing new sources of electricity generation is much more expensive than using our current sources of generation. A recent study by the Institute for Energy Research showed that, on average, electricity from new wind sources is nearly three times more expensive than existing coal. Even replacing existing coal with natural gas can be twice as expensive.

But cost is only part of the equation. Wind and solar also have intermittency issues—the wind doesn't always blow and the sun doesn't always shine. Nuclear power is a viable baseload source, but opposition to nuclear is a well-documented position of the environmentalist special interests behind the *keep it in the ground* campaign. Thus, we're left to conclude the ultimate goal is to leave Americans with an unreliable and expensive energy supply — and to make energy more expensive so that people are forced to pay more and use less.

The *Keep It In the Ground* Campaign Hurts our Economy

If successful, the keep it in the ground campaign would impose severe costs on the American people for scant benefits. Domestic energy production not only leads to lower energy costs for American families, but it also leads to more job opportunities and higher wages throughout the economy. Restricting access to natural gas, oil, and coal deprives the American people of these benefits, yet would have almost no impact on the climate or the environment.

Energy prices would go through the roof. America's abundant energy resources save people money. Despite President Obama's claims that "we can't just drill our way to lower gas prices,"[8] that is exactly what we have done. From 2008 to 2014, 97 percent of the global increase in oil production came from the U.S. and Canada alone (82 percent from the U.S.).

The additional oil the U.S. and Canada put on the world market caused prices to fall from about $100 per barrel to $30 per barrel. Americans are now paying about a third of what they were paying at the pump when President Obama took office. Abandoning oil production would quickly drive oil prices above $100 per barrel — and make us reliant on overseas energy producers once again.

Keeping oil and gas in the ground denies Americans huge potential economic benefits. The economic benefits of using natural gas, oil, and coal resources are enormous. A recent study by Dr. Joseph Mason of Louisiana State University outlines precisely how advantageous this would be for America's otherwise stagnant economy.

Opening up federal lands for energy production would create 552,000 jobs annually over the next seven years, with 2.7 million jobs annually over the next 30 years. Seventy-five percent of these jobs would be outside of the oil and gas industry in high-wage, high-skill fields such as healthcare, education, and the arts. It would translate into a $20.7 trillion cumulative increase in economic activity over the next thirty-seven years, simply by allowing Americans to go to work producing energy.

Opening federal lands to energy production would also generate $3.9 trillion in federal tax revenues over thirty-seven years, and $1.9 trillion in state and local tax revenues over the same period. This type of economic growth would greatly improve people's lives, yet the radical *keep it in the ground* campaign continues unabated. The alternative future they propose is one where energy costs are high, the economy is stagnant, and jobs flee the U.S. as companies search for destinations with lower energy prices.

The *keep it in the ground* campaign is focused on speculative and distant climate impacts, and ignores the real and immediate costs of not using natural gas, oil, and coal. The Obama Administration's so-called "Clean Power Plan" is the poster child for the type of regulation sought by the *keep it in the ground* campaign. If fully implemented, this regulation would only reduce global temperatures by 0.01 C by 2100![9] While the benefit is undetectable in the real world, the costs of this regulation could total nearly $300 billion dollars.[10]

These symbolic benefits come with a hefty price tag for families and individuals who have to pay for this regulation today. Even worse, these regulations hit hardest those who can least afford it, as EPA has readily admitted.[11] Yet this has not stopped EPA and proponents of *keep it in the ground* from using these same vulnerable communities as one of the moral justifications for their policies.

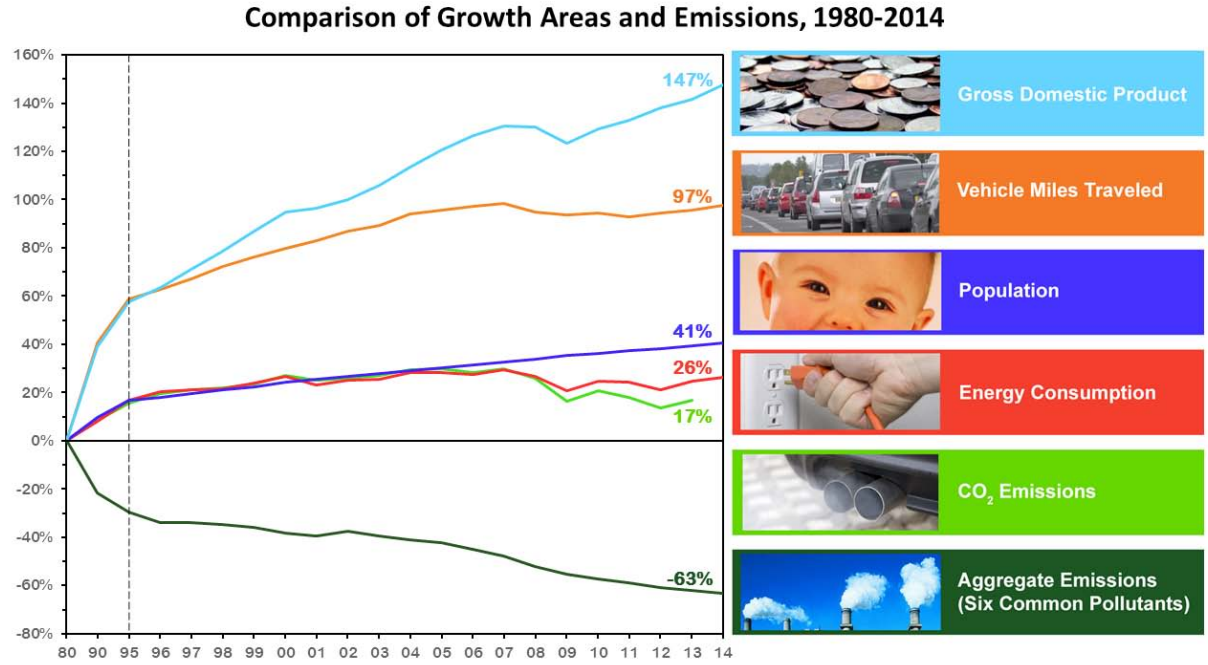
The Keep It In The Ground Campaign Imperils Our Health And Well-Being

The keep it in the ground campaign tells us its policies are designed to protect the environment and improve human health and well-being. However, as Americans have used more energy from natural gas, coal, and oil, our environment and air quality have improved. Deciding between utilizing our natural gas, oil, and coal resources and better health or a cleaner environment is a false choice. Additionally, natural gas, oil, and coal are key components in products that make modern life possible, including plastics used in medical equipment that save lives every day.

Using energy means healthier people and cleaner environments. Using affordable, reliable energy provides an undeniable net benefit to society—not just in dollars, but also in people's well-being.

History shows that as the U.S. used more energy, Americans' standard of living, their health outcomes, and the state of the environment improved dramatically. Air quality and life expectancy are two such indicators. From 1970 through 2014, total energy consumption increased by 45 percent, coal use nearly doubled, and total pollution emissions fell by 69 percent.[12]

Our increasing use of energy has not resulted in more pollution, but less. Furthermore, life expectancy increased from 71 to 79 years in 2012. People are living longer as we use more energy. In other words, we need not choose between economic well-being or better health and a clean environment. They are compatible.



This conclusion is supported by other countries' experiences as well. Countries that use more energy have better health outcomes and cleaner environments than those who use less.[13]

Alas, turning off the spigot to the very energy sources that have made these benefits possible would have an equally harmful impact on the health and environmental goals supposedly motivating the *keep it in the ground* campaign.

Natural gas, oil, and coal resources are not only used to make energy, but also important everyday products. Natural gas, oil, and coal do much more than heat our homes and fuel our vehicles. Each forms an essential element of what enables businesses to operate, food and supplies to be widely distributed, and hospitals to function.

Petroleum also helps create many of the industrial and consumer products we take for granted in our daily lives, from life-saving plastics used in hospitals to the Kevlar worn by firefighters, police officers, and military personnel. Restricting or eliminating access to our natural resources would not just cause higher prices; in fact, many products would simply not be made.

The proposed replacement energy resources—wind turbines and solar panels—fall squarely in the category of products that would be very hard to make without natural gas, oil, and coal.

For example, wind turbine towers are made through the use of coal, and turbine blades are composite materials made from natural gas and petroleum.[14] Energy expert Vaclav Smil explains:

> Wind turbines are the most visible symbols of the quest for renewable electricity generation. And yet, although they exploit the wind, which is as free and as green as energy can be, the machines themselves are pure embodiments of fossil fuels.
>
> Large trucks bring steel and other raw materials to the site, earth-moving equipment beats a path to otherwise inaccessible high ground, large cranes erect the structures, and all these machines burn diesel fuel. So do the freight trains and cargo ships that convey the materials needed for the production of cement, steel, and plastics. For a 5-megawatt turbine, the steel alone averages 150 metric tons for the reinforced concrete foundations, 250 metric tons for the rotor hubs and nacelles (which house the gearbox and generator), and 500 metric tons for the towers.
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> …
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> A 5-MW turbine has three roughly 60-meter-long airfoils, each weighing about 15 metric tons. They have light balsa or foam cores and outer laminations made mostly from glass-fiber-reinforced epoxy or polyester resins. The glass is made by melting silicon dioxide and other mineral oxides in furnaces fired by natural gas. The resins begin with ethylene derived from light hydrocarbons, most commonly the products of naphtha cracking, liquefied petroleum gas, or the ethane in natural gas.

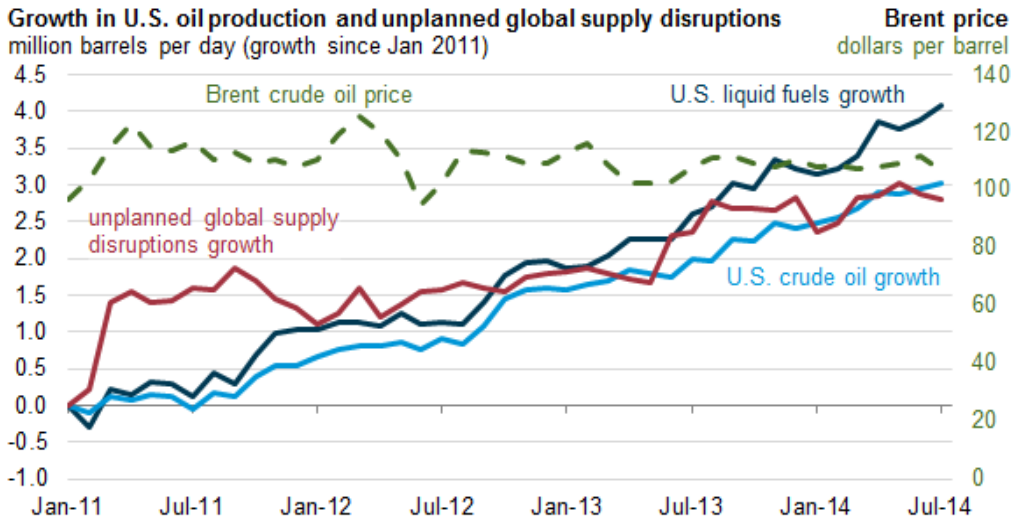
Unfortunately, the *keep it in the ground* campaign still needs to be reminded that wind doesn't magically create wind turbines by itself.

The *Keep It In The Ground* Campaign Threatens Our National Security

The keep it in the ground campaign not only threatens our economy, but also our national security. In the past, turmoil around the world has resulted in skyrocketing oil prices. However, thanks to the increase in U.S. production, oil prices have been lower and more stable despite unrest in other regions, particularly the Middle East. Restricting access to America's energy resources would make us more reliant on foreign oil and more susceptible to global disturbances.

The world would be a much more dangerous place if *keep it in the ground* were to succeed. Affordable, reliable energy provides the foundation for modern life and modern economies. Success of the *keep it in the ground* campaign would create massive dependence on energy imports, instead of the current U.S. policy of producing the vast majority of its energy domestically. The recent increase in domestic oil production has made the world a safer place by reducing the cost of oil per barrel and making Middle Eastern oil less strategically important. For the past few decades, problems in the Middle East resulted in dramatically higher oil prices. But thanks to the increase in U.S. oil production, the price of oil has been more stable and has trended lower — even with the rise of ISIS.

As the Energy Information Administration has noted, the increase in U.S. oil production has covered unplanned global supply disruptions.[15] This has made the world more energy secure.



If the *keep it in the ground* campaign succeeds, the U.S. would import 100 percent of our oil instead of 24 percent.[16]

Keep it in the ground also means importing natural gas instead of the U.S. producing nearly 100 percent of the natural gas it uses—and even exporting some. With coal, the U.S. is also self-sufficient. Keeping coal in the ground means finding an alternative source of electricity generation for one-third of all electricity generated in the U.S. Importing natural gas and coal would make the U.S. much more susceptible to supply disruptions. Greatly increasing energy imports put our national security, individual freedom, and economic development all in jeopardy.

Conversely, unleashing our natural resources at home and abroad might just be the boldest assertion of soft power available to the U.S. and the free world. For example, prospects of significant reserves of natural gas in places like Poland and Israel could prove extremely liberating from reliance on energy giants in the Middle East and Russia. Similarly, using the immense reserves available in the U.S. could upend long-standing international tensions provoked by some of the biggest government-controlled energy producers in the world.

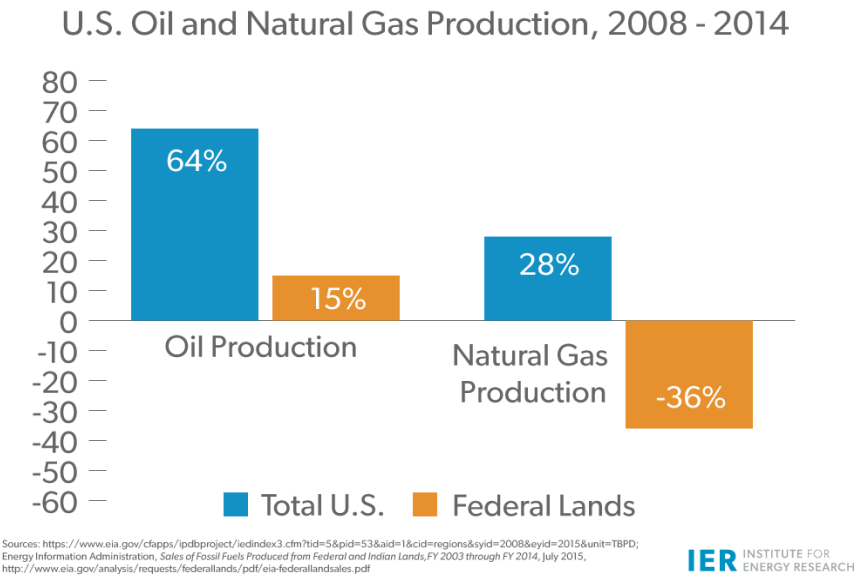
Keep It In The Ground Policies Are Already Underway, And More Threats Are On The Horizon

The keep it in the ground campaign isn't some far off threat. In fact, it has become the energy and environment policy of the current administration. President Obama has actively worked to block energy production on public lands and waters, while implementing regulations that cut off Americans' access to their most affordable, reliable energy resources. These policies open up the door for even more stringent policies down the road.

The campaign's agenda is already underway, and has been the de facto policy of the Obama administration. Despite the immense harm that would result from this policy, the *keep it in the ground* campaign is extremely well-funded.[17] It has quickly become the de facto energy policy of the Democratic Party, and is the predicate for many of the Obama Administration's most impactful policies.

Throughout his time in office, President Obama has actively blocked energy production on public lands and waters — and attempted to make energy production on private lands more expensive.[18] Despite the boom in oil and natural gas production on state and private lands, production on public lands is lagging.

Total U.S. oil production increased by 64 percent from 2008 to 2014,[19] but only increased by 15 percent on federal lands. Natural gas production on federal lands[20] fell by 36 percent over the same time period, while increasing by 28 percent overall.



The administration took its antagonism toward energy a step further this past January when it announced a ban on all new coal lease sales on federal lands. Coal was just the first step of this radical campaign, and we can expect similar moratoria on natural gas and oil.

Statements of support for the *keep it in the ground* campaign have become even more visible during this current election cycle. For instance, Hillary Clinton stated that ending natural gas, oil, and coal leasing on federal lands "was a done deal."[21] Real momentum for the campaign began when President Obama blocked the Keystone XL pipeline from Canada.

Since then, President Obama has ramped up the effort to cut off production through his coal-leasing moratorium, the so-called "Clean Power Plan," the reduction in offshore leasing, and coming methane regulations. All indications from the presumptive Democratic nominee Clinton are that she will double down on these disastrous policies.

The *keep it in the ground* campaign will lead to restrictions on recreation and other uses of public lands. Much of the rhetoric from the *keep it in the ground* campaign is about carbon dioxide emissions from the use of natural gas, oil, and coal. Frequently left unsaid is the fact that restricting carbon dioxide emissions from the use of public lands will lead to restrictions on recreational use of those lands.

Almost all recreation on public lands is associated with some carbon dioxide emissions—people fly or drive to National Parks, and other public lands and some National Recreation Areas include a substantial amount of boating recreation.

For example, the National Park Service recently released their visitation numbers for 2015. Park visitation surpassed 307 million during 2015, and nearly all visitations involved carbon dioxide emissions.

In fact, most uses of public lands are associated with carbon dioxide emissions. Therefore, if we take the keep it in the ground campaign to its logical conclusion, nearly every activity on public lands will be impacted.

Even those who use public lands for backcountry recreation such as backpacking or cross-country skiing almost always drive an SUV, truck, or car to the wilderness boundary and then start hiking or skiing from there. In the Western U.S., almost all of the ski resorts are at least partially on federal lands, as well as ski resorts in Michigan, New Hampshire, and Vermont. All told, 122 ski and snowboard areas are on public lands.[22]

Some may argue that the carbon dioxide emissions from recreation on public lands are smaller than carbon dioxide emissions from coal. This ignores that the *keep it in the ground* campaign is working to eliminate all carbon dioxide emissions — not just some.

The *keep it in the ground* campaign's goals logically lead to restrictions on recreation on public lands. Large restrictions on the use of public lands for not only energy production, but also for recreation are in store if we follow the *keep it in the ground* campaign's objectives.

Conclusion

The U.S. is blessed with the largest combined natural gas, oil, and coal resources in the world. These resources help America grow and prosper — and provide families with affordable energy and products that make modern life possible. Even still, the *keep it in the ground* campaign is working to cut off all access to these resources, and the many benefits they provide the American people.

The *keep it in the ground campaign* is not some distant threat. With the help of the White House and allies on Capitol Hill, this network of activists and moneyed interests has already achieved some successes such as stopping the Keystone XL pipeline, imposing a moratorium on new coal leases, and getting the Obama administration to withdraw offshore Atlantic permits from available natural gas and oil leasing opportunities.

If continued, *the keep it in the ground* campaign will have severe and long lasting impacts on our country. Cutting off access to the very resources that power our economy will not only raise energy costs, but also the costs of everyday products that make modern life possible for American families. This will lower the quality of life for every American—especially the poor and middle class, who can least afford these higher costs. The *keep it in the ground* campaign also paints a grim picture for future generations who would suffer from a struggling economy and a lack of opportunity as a result of these policies.

Rather than following the *keep it in the ground* agenda, we should embrace policies that utilize our vast energy resources. Doing so will lead to a more prosperous society and will create economic opportunities for current and future generations.

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