



POWER THE FUTURE

LONG TERM ENERGY DOMINANCE

What the Trump Administration Needs
to Do in the Second Term to Strengthen
America's Energy Future





POWER THE FUTURE

CONTENTS

Overview	3
Introduction: America, An Energy Powerhouse	3
A Central Role for Small and Mid-Sized Producers	4
The Impact of COVID-19	6
Energy, National Security, and Geopolitics	7
Policies to Protect Our Independence and Power Our Future	8
Conclusion	10

OVERVIEW

The Trump administration's policy of "Energy Dominance" unleashed the power of America's energy sector. Given a second term, President Trump has the ability to secure our energy independence for the foreseeable future. This would give America untouchable leverage in international relations and provide economic prosperity for her citizens.

The challenges created by the COVID-19 pandemic are great and demand leadership only he can provide. Small and mid-sized energy producers, the backbone of the fracking industry, were hit hard by the economic downturn. Market-friendly policies that level the playing field for these businesses will get our vast shale oil and gas resources working for America again while creating hundreds of thousands of good-paying jobs. It's time to let energy do what it does best: get America moving.

This study outlines specific actions which, taken by President Trump in his second term, can power the future of our nation for the next generation.

INTRODUCTION: AMERICA, AN ENERGY POWERHOUSE

Fossil fuels remain the indispensable energy source for the U.S. and the world, accounting for four-fifths

of American energy production and consumption in 2018.¹ Their importance will only grow, as they are projected to "still account for 78.5 percent of total U.S. energy production" in 2050, according to the EIA.²

This is one the fastest-growing sectors of the U.S. economy over the last decade. From 2016-2018 revenues from the energy sector rose from \$103.5 billion to \$180.9 billion, supporting over 1.1 million well-paid jobs, due largely to the administration's pro-growth policies.

Fossil fuels remain the indispensable energy source for the U.S. and the world, accounting for four-fifths of American energy production and consumption in 2018.

Job growth in the fossil fuels sector outpaced every other part of the energy industry, adding 51,000 jobs for a 4.9% increase in 2018, with most of this increase (41,000) being in mining and extraction. Compare this to declining employment in solar power generation, which slumped 3.2% over the same period to 242,000 full-time jobs, and nuclear power generation, down 2.7%.³

Petroleum and natural gas also support large numbers of jobs in related sectors like power generation, including 112,000 workers employed in natural gas electricity generation. When these totals are included, the number of jobs directly supported by the fossil fuels sector totals around 1.5 million employees, dwarfing all other energy sectors combined.⁴ Plus, each additional \$1.4 million spent

1 "Fossil fuels continue to account for the largest share of U.S. energy." EIA [website](#), September 18, 2019; "2017 U.S. Energy and Employment Report." Energy.gov [website](#)

2 2020 report p. 55

3 P. 63

4 P. 96. Also. <https://oilprice.com/Energy/Energy-General/The-10-Highest-Paying-Jobs-In-Oil-Gas.html>

on natural gas supports 6.2 additional local jobs outside the energy sector, while the same amount spent on petroleum supports 15.9 jobs.⁵

Oil & Natural Gas Employment, 2010-2018

2009	422,033
2010	456,884
2011	499,525
2012	569,000
2013	586,884
2014	538,000
2015	540,925
2016	396,000
2017	621,504
2018	685,534

Source: (BLS NAICS 211, 213112, 213111)

These sectors have seen strong, sustained wage growth, reflecting a highly competitive recruitment market. The average day rate of an operator/technician in North America rose from \$350 in 2017 to \$475 in 2018,⁶ while the average oil and gas worker earned a salary of \$97,143⁷ – around \$20,000 more than the average for American college-educated workers. As a result, “the energy and utility sectors have the highest median salary of any industry in the S&P 500,” according to the Wall Street Journal.⁸

Oil & Natural Gas Wages

In previous studies, we demonstrated that the “green” energy pushed by fossil fuel opponents are dominated by our adversary: communist China. Whether it’s the rare earth elements (of which they control 90% – 95% of the market) or the manufacturing of renewable energy products like wind turbines and solar panels (of which they control 60% - 70% of the market) China is surely a beneficiary in any efforts to cancel fossil fuels and switch to their products. Fossil fuels are thoroughly and unequivocally domestic and American.



Source: BLS

A CENTRAL ROLE FOR SMALL AND MID-SIZED PRODUCERS

The rapid increase in American energy production – and accompanying blue collar jobs boom – is largely due to the rise of small- and medium-sized energy companies specializing in fracking (hydraulic fracturing). Oil produced by fracking rose from 6% of U.S. production in 2000 to well over half in 2019, at almost eight million barrels per day, while natural gas production soared to over 108 billion cubic feet per day.⁹

5 http://www.ilo.org/wcmsp5/groups/public/--dgreports/--inst/documents/publication/wcms_625865.pdf

6 https://energyoutlookguide.com/wp-content/uploads/2019/07/oil_and_gas_outlook_guide_2019.pdf

7 <https://www.energyindepth.org/oil-and-gas-workers-among-the-best-paid-in-america/>

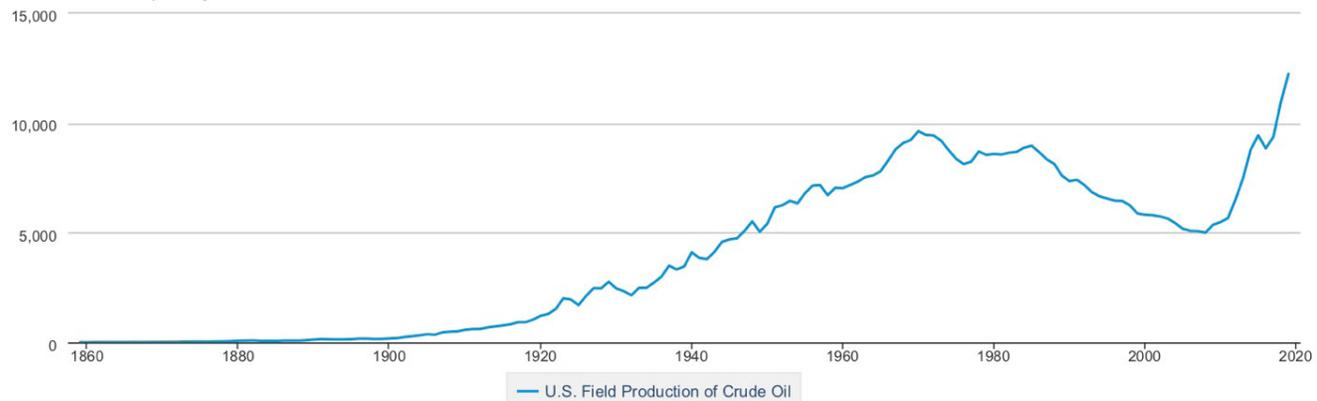
8 <https://www.wsj.com/articles/typical-workers-pay-nears-200-000-at-oil-refiner-11556103600>

9 <https://www.eia.gov/petroleum/wells/>

U.S. crude oil production

U.S. Field Production of Crude Oil

Thousand Barrels per Day

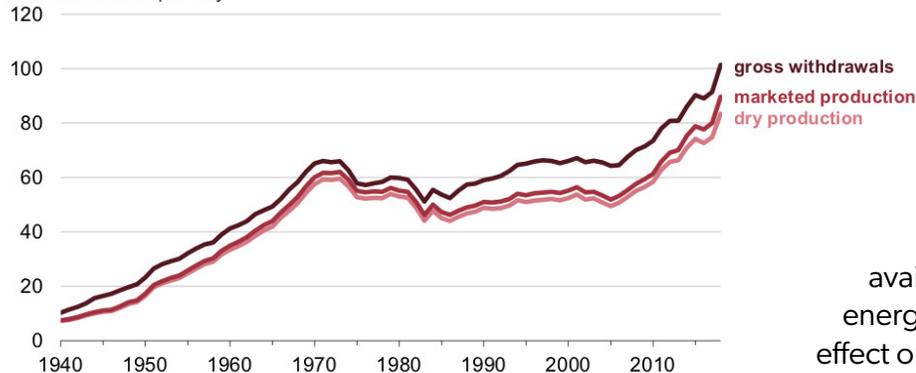


Source: EIA

U.S. natural gas production

U.S. annual natural gas production (1940-2018)

billion cubic feet per day



Source: EIA

As a result the U.S., for decades an energy importer, has become the world's leading producer of oil, averaging 17.87 million barrels per day in 2019, versus 12.42 million for Saudi Arabia and 11.25 million for Russia.¹⁰ These huge increases made fracking a "game changer" not only for America but the world market,

As a result the U.S., for decades an energy importer, has become the world's leading producer of oil, averaging 17.87 million barrels per day in 2019, versus 12.42 million for Saudi Arabia and 11.25 million for Russia.

¹⁰ <https://www.bloomberg.com/news/articles/2020-01-02/russia-s-oil-output-hits-post-soviet-record-despite-opek-deal#:~:text=Russia%20produced%20560.2%20million%20tons,1987%2C%20BP%20Plc%20data%20show> ; <https://www.investopedia.com/investing/worlds-top-oil-producers/>

¹¹ <https://www.iaee.org/en/publications/init2.aspx?id=0>



moderating global energy prices long controlled by giant state-dominated producers overseas.¹¹

The rise of fracking did much more than simply bolster American energy independence and deliver lower average energy prices for American consumers. The ready availability of steady, reasonably priced energy supplies had a wider "knock-on" effect on the U.S. economy by encouraging increased investment in energy-intensive categories like manufacturing, which helped revitalize the nation's long-neglected industrial base. From 2016-2019 the U.S. added 500,000 new manufacturing jobs, while total manufacturing

output increased 11.9% from under \$2.1 trillion in 2016 to over \$2.3 trillion in 2018.¹²

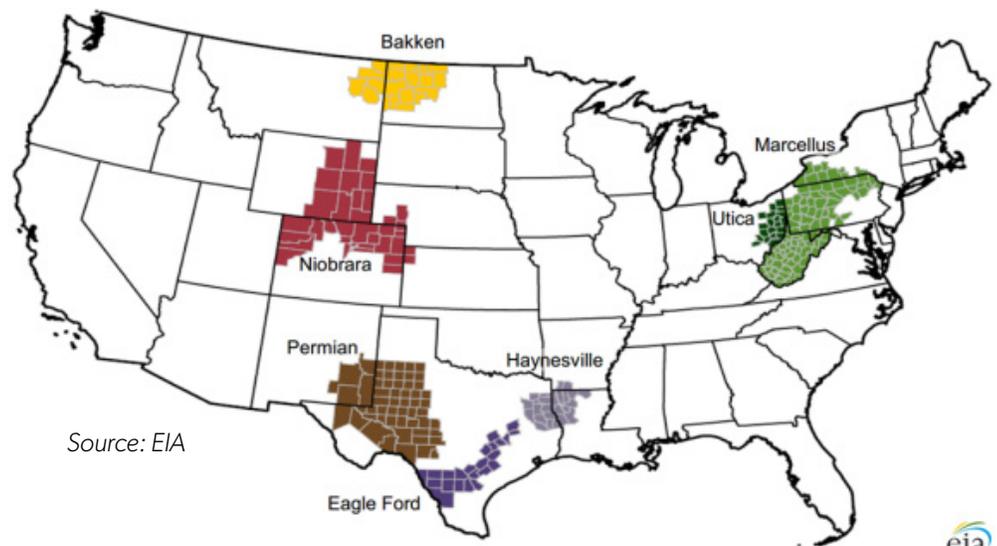
The jobs supported by the new generation of small- and mid-sized energy producers are even better compensated than the energy industry at large, and far above the national average. The average rig worker in the Marcellus Shale fields of Pennsylvania earned \$113,610 in 2018, a substantially higher salary than workers at larger, conventional energy producers, and almost 50% more than the average college-educated American worker.¹³

Many of these high-paying jobs are located in political swing states. Thanks to continued growth in fracking, from 2016-2019 employment in Ohio's oil and gas industry increased 6.9% to 208,323, or around 4% of the state's total jobs. Kimberly Hall, director of Ohio's Department of Job and Family Services, noted: "The average wages of shale-related jobs are excellent: \$81,749 in core industries and \$70,787 in ancillary industries. In both cases, this is higher than the average wage in all Ohio industries: \$51,740."¹⁴ In Pennsylvania total employment in the fracking sector rose 13.4% from 2017-2019, to 23,690,¹⁵ while West Virginia counted 27,353 fracking jobs.¹⁶

In a previous study, Power The Future highlighted the numerous economic benefits of fracking in Pennsylvania, comparing it to neighboring state

New York. The Empire State has tremendous shale reserves, but because of a fracking ban issued by Governor Andrew Cuomo, they have forgone major economic benefits and blocked a path to prosperity for ordinary people across the economically depressed upstate region. Given the current state of its economy, lifting the fracking ban in New York is an immediate step the Governor could take to improve the livelihood of millions of his constituents.

Major oil and natural gas producing regions tracked in EIA's *Drilling Productivity Report*



THE IMPACT OF COVID-19

Lockdowns hit the energy sector hard this year, with steep drops in transportation fuel consumption and idling of factories. The price of a barrel of WTI tumbled from an average of \$56.99 in 2019 to \$39.70 in July 2020,¹⁷ and a slow, modest

12 <https://www.nam.org/state-manufacturing-data/2019-united-states-manufacturing-facts/>
13 <https://marcellusdrilling.com/2018/05/average-workers-at-top-marcellus-drillers-make-100k-salary/>
14 https://ohiolmi.com/Portals/206/OhioShale/Ohio%20Shale%20Report_Q3_2019.pdf?ver=2020-04-30-061705-090
15 <https://www.bizjournals.com/pittsburgh/news/2020/08/18/five-things-to-know-about-energy-report.html>
16 <https://static1.squarespace.com/static/5a98cf80ec4eb7c5cd928c61/t/5c7f4271b208fc58dbacf432/1551843954140/WestVirginia.pdf>
17 <https://www.statista.com/statistics/262858/change-in-opec-crude-oil-prices-since-1960/>

ENERGY, NATIONAL SECURITY, AND GEOPOLITICS

recovery is forecast, to \$45.07 in 2021.¹⁸ For the first time ever, global oil futures went negative in the spring, meaning producers had to pay refiners and warehouses to hold their oil in future contracts. Meanwhile hub prices for natural gas fell from an average \$2.56 in 2019 to an average of \$2.25 in 2020 to date, a 12.2% drop.¹⁹

In the face of growing uncertainty and China's pernicious influence in global markets, it's more important than ever to ensure America's own plentiful energy resources – both as a guarantee of our own national security and to reassure our allies.

Falling energy prices due to the COVID-19 recession have left many fracking companies in distress. In April one business report noted: "At current prices, not one of the 100 largest fracking operations in the country can turn a profit."²⁰ The challenge was even more acute for some smaller operators. By June 2020 it was estimated that 30% of U.S. shale producers were technically insolvent,²¹ leading to a wave of consolidation, as idled rigs sold for pennies on the dollar.

Although this consolidation is a natural, market-driven response to a sudden shock, it would be shortsighted to hobble a key driver of America's pre-pandemic economic growth and national security.

In the face of growing uncertainty and China's pernicious influence in global markets, it's more important than ever to ensure America's own

plentiful energy resources – both as a guarantee of our own national security and to reassure our allies.

The importance of maintaining diverse, dependable sources of energy was driven home in dramatic fashion in September 2019 when Iranian-backed attacks on Saudi oil facilities briefly

took around half of Saudi capacity offline, causing oil prices to spike by 20%.²² The multivalent nature of this threat was further highlighted by Iranian missile attacks on oil tankers from a number of nations friendly to the U.S. in the Strait of Hormuz, which will remain a key maritime chokepoint for energy supplies exiting the Persian Gulf.²³ Geopolitical analysts warn that oil shipping in the Strait of Hormuz will be a top target for Iranian asymmetrical warfare attacks in the event of future armed conflict between Iran and the U.S. or other regional players.²⁴

The Persian Gulf isn't the only place where powers opposing the U.S. and its allies use energy as geopolitical leverage. Russia in particular has long used its own energy supplies, as well as control

18 <https://www.eia.gov/outlooks/steo/report/prices.php>

19 <https://www.eia.gov/outlooks/steo/report/natgas.php>

20 <https://qz.com/1830456/how-the-coronavirus-is-disrupting-the-us-fracking-industry/>

21 <https://www.cnn.com/2020/06/28/business/chesapeake-energy-bankruptcy/index.html>

22 <https://www.bbc.com/news/business-49710820>

23 <https://www.cnbc.com/2019/06/22/oil-tanker-attacks-in-the-strait-of-hormuz-requires-an-international-response-us-envoy-to-iran-says.html>

24 <https://www.csis.org/analysis/strategic-threat-iranian-hybrid-warfare-gulf>

of pipeline routes from oil- and gas-rich client states in Central Asia, to intimidate and coerce European nations dependent on these energy sources.²⁵ While Russia presents new pipeline projects (like Nordstream 2) as moves to guarantee energy supplies, in fact they simply serve to increase Russia's leverage by allowing it to threaten individual countries which displease the Kremlin without affecting others – in effect making its energy weapon more precise.²⁶

In recent years Russia has also taken advantage of geopolitical instability to increase its control over energy supplies outside its region, especially across the Middle East. Military interventions in Syria and Libya, along with diplomatic and commercial initiatives in neighboring countries including Algeria, Egypt and Iraq, appear aimed at gaining influence over competing suppliers of oil and gas, further increasing Russia's leverage over European buyers who depend on these supplies.²⁷

POLICIES TO PROTECT OUR INDEPENDENCE AND POWER OUR FUTURE

Measures to secure our country's long-term national security and prosperity deserve broad bipartisan support. While the industry shakeout resulting from COVID-19 is certain to continue, there are a number of straightforward policy measures that can help mitigate the long-term damage, ensuring that energy producers of all sizes will be able to survive and thrive for years to come. The following policies can unleash our full energy potential without the need for handouts, subsidies, or market-distorting measures, and should be a focus for the Trump

administration's second term:

1. Increase energy leasing of public lands.

In 2019 the Department of Commerce recommended measures to decrease America's dependence on foreign sources of energy and minerals, including making it easier for private companies to lease public lands for energy production. Currently new mining operations are either restricted or banned on more than half of all federally owned public lands.

The Department of Interior (DOI) should consider rolling back excessive limits on these activities imposed under the Federal Land Management and Policy Act, as well as stopping the use of vaguely defined "areas of critical environmental concern" to restrict energy producers' access to public lands. Similarly, DOI should enable multiple use of Wilderness Study Areas.

In addition to opening up new energy resources, energy leases are an important source of non-tax revenue for the government, generating around \$3 billion in royalties, rental payments and bonus bids in 2018, according to the Bureau of Land Management. These revenues are split between the federal government and states where energy leases are granted.²⁸

2. Expand offshore exploration and drilling.

This key area of energy production, almost all of it concentrated in U.S. waters in the Gulf of Mexico, currently accounts for around 16% of the country's oil production and 3% of its dry natural gas production.²⁹ Labor-intensive and technically complex, offshore production tends to be even better compensated than onshore energy production jobs, with an average salary of

25 <https://www.files.ethz.ch/isn/134230/pub1088.pdf>

26 <https://www.atlanticcouncil.org/blogs/ukrainealert/time-is-running-out-to-kill-putin-s-pet-project/>

27 https://www.iemed.org/observatori/arees-danalisi/arxiu-adjunts/anuari/med.2019/Russia_Energy_Politics_EU_Marc_Pierini_Medyearbook2019.pdf

28 <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/about>

29 <https://www.eia.gov/energyexplained/oil-and-petroleum-products/offshore-oil-and-gas-in-depth.php>

\$100,000 per year.³⁰ However further development of this critical category has been severely limited by arbitrary decisions issued by the Office of Protected Resources, a small bureaucratic outfit currently located in the NOAA Fisheries at the Commerce Department.

To make OPS decision-making more accountable and transparent, this office should be transferred to the Department of the Interior and aligned with the U.S. Fish and Wildlife Service – a more logical place given its purpose and function.

3. Waive marine shipping requirements on liquid natural gas (LNG).

One of the most exciting potential growth areas for the U.S. energy industry is LNG, where growing demand in Europe and Asia presents a massive opportunity for energy producers of all sizes. LNG exports are also a critical element of U.S. national security, as they offer our European allies an alternative to Russian natural gas delivered via pipeline. However, American gas exports are limited by punitive environmental restrictions.

The outdated Jones Act – a century-old law requiring all shipping between American ports to be carried on ships built, owned, and operated by U.S. citizens – effectively make shipping LNG to U.S. destinations including Hawaii, Alaska, and Puerto Rico impossible, since there is still no U.S.-built LNG tanker fleet. Rolling back maritime shipping restrictions is a critical step to boosting U.S. LNG exports as well as our domestic LNG trade.

4. Streamline permitting for energy projects.

An executive order signed in June eased some federal rules for oil and gas drilling permits helped make Clean Water Act Section 401 certification process faster and more efficient. However, federal bureaucracy continues to pose a major obstacle to new energy production projects, including restrictions imposed by the Endangered Species Act and the National Environmental Policy Act.

Even after federal permits are obtained, new energy infrastructure projects also continue to face long delays imposed by activists and state administrations, which can hold up development for months or even years with court challenges. Prime examples include ongoing legal challenges to U.S. Army Corps of Engineers permits for the Keystone XL Pipeline and Dakota Access Pipeline. The latter has been operating for three years, with more than 1,000 certificates, approvals, and permits from local, state, and federal authorities – and yet it was still threatened with a total shutdown by a court order in July. Activists are also challenging the Nationwide Permitting 12 program, threatening 80 other major energy infrastructure projects.

These tactics can just as easily be used to derail renewable energy projects – so there should be broad bipartisan support for clearing legal obstructions with new executive rulemaking and legislation.

5. Cut renewable energy subsidies.

The federal government has a long history of doling out lucrative subsidies to so-called “green” energy producers, but for the most part these have simply served to prop up inefficient, unsustainable businesses as the expense of American taxpayers. Tax incentives like the production tax credit (PTC) award large tax write-offs to industries like wind power generation, while solar power producers benefit from the investment tax credit (ITC), intended to offset construction costs for new solar generators.

To date, wind and solar energy producers have received over \$100 billion in subsidies, and the program has been regularly renewed even though it was originally intended to be strictly temporary since its inception in 1979. As a result, renewable energy producers continue to receive massive subsidies even as the costs of production has declined: it now costs less to establish a new wind farm than a new natural gas power plant, due to subsidies which can cover up to a third of their

construction cost.

Even renewable energy industry organizations admit these subsidies are no longer needed. The American Wind Energy Association concedes: “Growth in the wind industry is expected to remain strong when the PTC is fully phased-out.” At the same time, federal subsidies to renewable energy producers have not delivered lower energy costs to consumers, one of their main stated goals. It’s time to scrap subsidies to renewable energy and let the industry compete with other energy producers on a level playing field.

6. Level the playing field between American and foreign oil imports.

Although America’s domestic oil production has soared over the last decade, U.S. producers still have to compete with foreign oil imports. In 2019 the U.S. imported 9.1 million barrels of oil per day, compared to domestic production of 19.5 million barrels. The fact that the U.S. not only exports but also imports oil is because many of the imports are refined for re-export or used to manufacture non-fuel products.³¹

As a result, American producers still face serious – and potentially unfair – competition from foreign producers, virtually all of them giant state-owned energy companies or multinational corporations. Russia’s Rosneft, Saudi Arabia’s Aramco and other overseas competitors enjoy major advantages that small- and mid-sized American producers don’t. Their national governments ensure domestic monopolies, guarantee access to credit, and offer subsidies and tax breaks worth tens of billions of dollars.³²

The U.S. can level the playing field for domestic producers. In addition to the measures outlined above, we can prohibit existing refineries owned by foreign, state-backed energy companies from granting preferential access to their imports. We can also allow construction of new refineries and infrastructure designed to handle American oil grades closer to shale oil fields, lowering transportation costs.³³ We can pass laws to stop Canadian utilities from dumping surplus electricity at below-market rates, and demand that Mexico bear its fair share of any internationally agreed production cuts.

CONCLUSION

The Trump administration has shown the world what America’s independent energy producers can do. Backed by strong leadership and smart policies, the energy sector can help revive our economy and get America moving after COVID-19. Market-friendly policies that level the playing field for small- and mid-sized energy producers will unleash the full potential of our shale oil and gas resources, create hundreds of thousands of good-paying jobs, and secure our economic independence far into the future.

Fostering our energy independence isn’t just good for Americans. It’s a force for advancing peace and stability around the world.

Fostering our energy independence isn’t just good for Americans. It’s a force for advancing peace and stability around the world. U.S. energy independence has been key to unlocking a new

31 <https://www.eia.gov/energyexplained/oil-and-petroleum-products/imports-and-exports.php>

32 <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9969.pdf> and <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9973.pdf>

33 <https://www.reuters.com/article/us-saudi-aramco-attacks-trump/trump-says-u-s-does-not-need-middle-east-oil-but-cargoes-keep-coming-idUSKBN1W12RO>

era of progress in the Middle East. By bolstering negotiating power vis-à-vis oil-rich states, we laid the groundwork for historic peace deals between Israel and Arab states in the Gulf. And a growing U.S. energy supply helped western Europe push back against the Kremlin-backed Nordstream 2 pipeline, limiting further Russian economic encroachment in this strategic region.

Imagine how much more we can do for our citizens – and the world – with a stronger, energy independent America.