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Importance of Gulf of Mexico Energy Production to the United States
November, 2020

The natural gas industry, and oil is not going to be fundamentally changed [by my Administration]. They're already in transition.
Joseph R. Biden, October 24, 2020

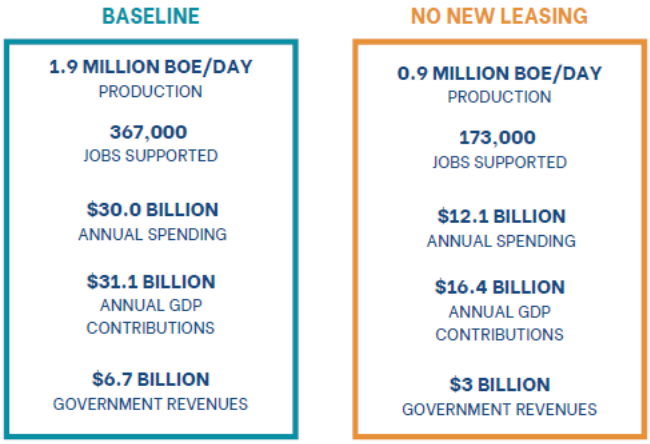
Legal and Regulatory Background:

Since the 1930s, energy companies have tapped oil and gas resources offshore in the United States. The primary federal law on developing oil and gas in federal waters (which begin at least 3 miles offshore, depending on the state) is the Outer Continental Shelf Lands Act (OCSLA). This law, critically, does not simply *allow* for offshore oil and gas development but rather it states that its main purpose is "expeditious and orderly development [of resources], subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs."[1] To do this, OCSLA creates a framework by which federal waters and the resources under them are regularly leased—via Section 18 of the law and the requirement for the Secretary of Interior to prepare a five year leasing plan which includes a schedule of leases. The leasing program explicitly must balance and consider "economic, social, and environmental values".[2] In short, leasing of America's offshore is imbedded in statue and has been for decades, with energy produced off our coasts for nearly 100 years.

Some 97% of offshore oil and gas production happens in areas termed either the Central or Western Gulf of Mexico--see here in a Department of Interior map—with green areas showing active leases towards the end of the Obama-Biden Administration.[3] **Despite proposals and significant debate about tapping new areas, areas actively under consideration for potential leasing and development have not expanded under the Trump Administration.**

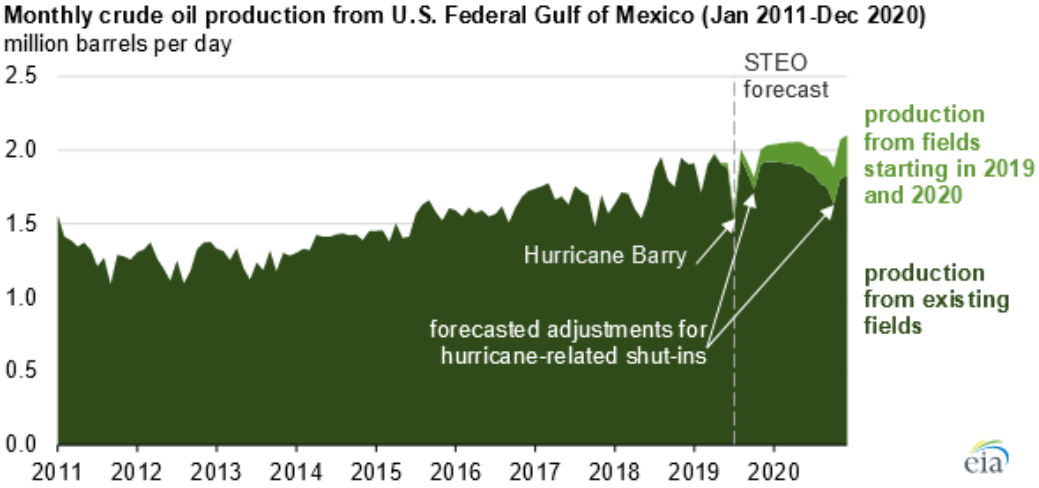
[1] 43 U.S.C. Sec. 1332(3)
[2] 43 U.S.C. Sec. 1344 a(1)
[3] https://www.boem.gov/sites/default/files/about-boem/BOEM-Regions/Gulf-of-Mexico-Region/GOM-OCS_Lower_48_Strategy_2012-2017.pdf

Despite this longstanding production in the Gulf, and the Department of Interior's legal mandate to lease America's waters for responsible energy production, some have proposed that the Biden Administration should restrict or halt leasing in the Central and Western Gulf of Mexico. NOIA commissioned a study on just such a proposal, and that study is attached to this document, but in short **such a policy would slash nearly 200,000 jobs from the United States and dramatically harm energy production over the next two decades.**



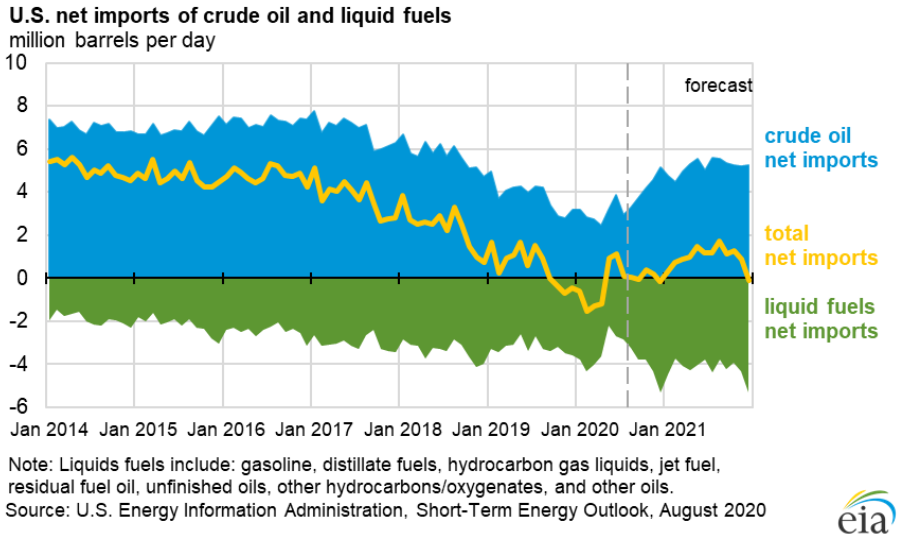
Increasing Energy Production From The Offshore:

In general, the story of offshore oil and gas has been one of innovation, safety, environmental protection, and stability. Prior to the COVID-19 crisis, we saw a continual increase in production from the Gulf of Mexico (see below).[4]



[4] https://www.eia.gov/todayinenergy/detail.php?id=41693

This production in the Gulf has formed the backbone of the domestic oil and gas renaissance. The offshore region has served as the foundation of U.S. energy security, providing more than a million barrels of oil per day since 1997 and reaching record volumes of two million barrels per day in August of 2019. Domestic production has climbed dramatically in recent years, helped by the offshore but pushed significantly by onshore energy production to the point that America has at times become a net oil and fuels *exporter*.[5] This is a remarkable sea-change for the American economy, balance of trade, national security, and countless other benefits in communities across the country. In fact, if the Gulf of Mexico represented a country, it would be the 8th largest oil producing nation in the world.



There is bipartisan support for ensuring that the U.S. retains the benefits of energy leadership, including the economic and geopolitical benefits accrued through oil exports. In the weeks leading up to the 2020 presidential election, Representatives Henry Cuellar (D-TX), Jodey Arrington (R-TX), Carol Miller (R-WV) and Lou Correa (D-CA) launched the Congressional Energy Export Caucus. The bipartisan Caucus seeks to increase the export of U.S.-produced fossil fuels and renewable energy technology, both of which are supported by a strong Gulf of Mexico oil and gas industry.

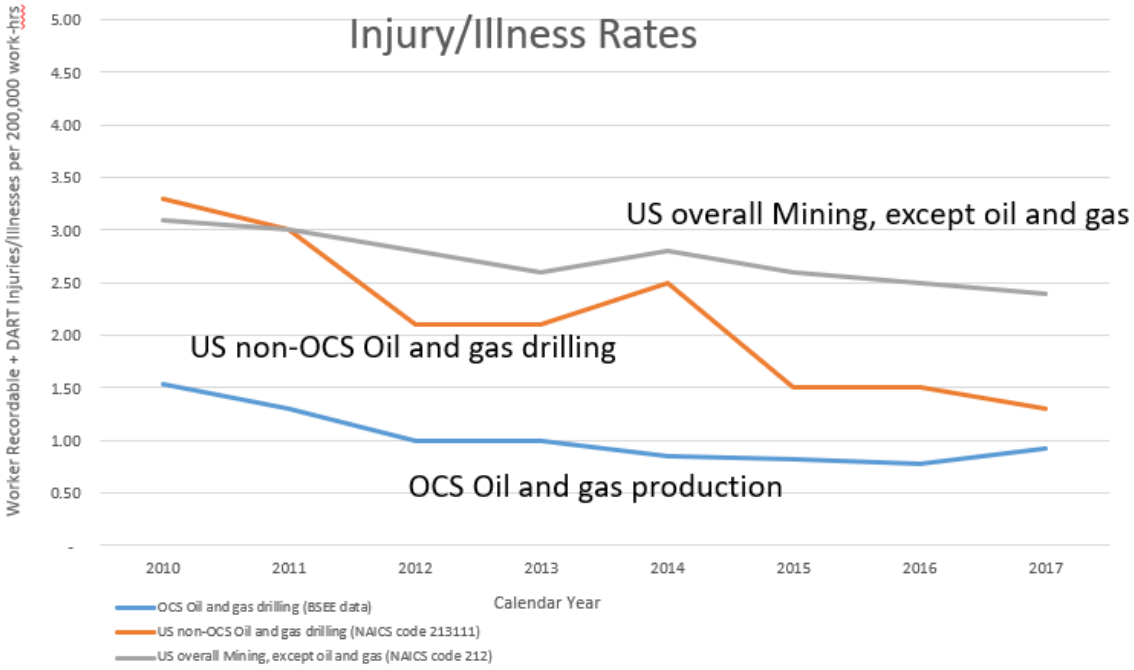
Safety and Environmental Impact

Critically, this **offshore production *also* comes with a smaller environmental impact than what has been seen in other regions of the world as it relates to the physical footprint, air emissions, and water use and management**. The U.S. offshore is characterized by one of the strongest regulatory and oversight regimes in the world, making production here in the U.S. much cleaner than many producing regions in the world. Offshore production produces high volumes of oil with a far smaller physical footprint than can be seen in other regions or with onshore production. It is also cleaner in terms of emissions such as methane, one of the most

[5] https://www.eia.gov/outlooks/steo/report/us_oil.php

potent greenhouse gases. Critically, regulations have evolved regarding venting and flaring of methane in the offshore to the point that the practice has been dramatically reduced in the Gulf of Mexico**. In fact, methane emissions in 2018 in federal waters accounted for a mere 2.95% of nationwide energy production emissions.[6] This is despite the fact that the Gulf of Mexico accounts for roughly 17% of domestic oil production.**[7] In addition, the carbon intensity of the Gulf of Mexico is 50% of that of other producing regions[8]. In short, the U.S. and world depend upon reliable supplies of oil and natural gas for a high quality of life and to lift people out of poverty, and U.S. offshore production should be the basin of choice for producing that energy because of proven environmental benefits.

At the same time, offshore oil and gas production remains safe. The below chart is from the Bureau of Safety and Environmental Enforcement. While any incident is one too many, the offshore has proven, even with its complexity, to be much safer than many similar industrial activities across the country:



Critically, the rate of oil spills remains very low as well. In fact, 2018 and 2019 represent the two best performing years over the past two decades. In 2019 only 72 barrels were spilled out of 697 *million* barrels produced by operational offshore facilities.[9] To put this in perspective, this is

[6] https://www.eia.gov/dnav/ng/ng_prod_sum_a_EPG0_VGV_mmcf_a.htm
[7] https://www.eia.gov/special/gulf_of_mexico/
[8] https://s3-eu-west-1.amazonaws.com/itempdf74155353254prod/12111480/Statistical_Study_of_Carbon_Intensities_in_the_GOM_and_PB_v1.pdf
[9] https://www.bsee.gov/sites/bsee.gov/files/budget-justifications//fy2021-bsee-budget-justification-c.pdf

equivalent to approximately one cup or 17 tablespoons of oil in a 660,430 gallon Olympic-sized pool[10]. Performance by the industry has been consistently good, as the 2018 volume spilled was even less, at approximately 51 barrels out of 646 million barrels produced, equivalent to less than one cup or 13 tablespoons in an Olympic sized pool. The 2018 offshore spill volumes equaled less than 1% of the volume of oil spilled by commercial marine transportation that same year (8,154 barrels). The volume of oil spilled from U.S. OCS operations is exceedingly less than the volume spilled from marine transportation, which can occur from the transportation of oil imported from foreign sources. For added perspective, the National Academies of Sciences estimates that natural seepage from the seafloor of the Gulf of Mexico easily runs each year into the millions of barrels[11].

Furthermore, industry is continuously advancing prevention and response capabilities and technologies. Participation in industry-wide consortiums such as HWCG and Marine Well Containment Corporation and innovation in everything from intervention systems and subsea dispersant injections to artificial intelligence and machine learning to remote sensing have built a robust safety and environmental backstop in the U.S. The mission of "zero spills, zero incidents" is a core part of everything our industry does.

Offshore production platforms contribute to biodiversity as these structures become home to vast ecosystems below the water line that feed the marine life population. Ask any Gulf Coast fishermen and they will attest to the fact that these structures are home to some of the best fishing spots in the Gulf of Mexico.

Also, U.S. offshore oil and gas production precludes adverse issues associated with environmental justice as production occurs many miles from onshore populations. In fact, as discussed below, the offshore oil and gas industry provides high-paying jobs for Americans of all walks of life and the revenues from federal offshore oil and gas development provide the funding for the Land & Water Conservation Fund, which is a program that provides for parks, recreation and outdoor activities for communities throughout the fifty states. The U.S. offshore industry has proven to be a great neighbor and has been a significant contributor to coastal communities through funding for local food banks, schools, hospitals and other vital community services.

There has been a demonstrable link between blocking access to U.S. energy and increased dependence on foreign sources of energy. To combat high winter energy prices, imports of Russian LNG in Boston Harbor have occurred relatively recently, despite New England's relatively close proximity to the Marcellus Shale play in Pennsylvania[12]. Unsurprisingly, production of energy in places like the Yamal region of Russia, which has been imported by the U.S., is far removed from the robust safety and environmental regulations, standards and practices deployed in the U.S.

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[10] https://mcusercontent.com/c3f5733205a819b59caa42da4/files/9330101c-1557-4496-a1e7-9cb9c3a45132/BSEE_Results_Not_Excuses.pdf

[11] https://www.nap.edu/read/10388/chapter/4#70

[12] https://www.bostonglobe.com/opinion/editorials/2018/02/12/our-russian-pipeline-and-its-ugly-toll/K0wQ7FBTGR756DqorYkwxN/story.html

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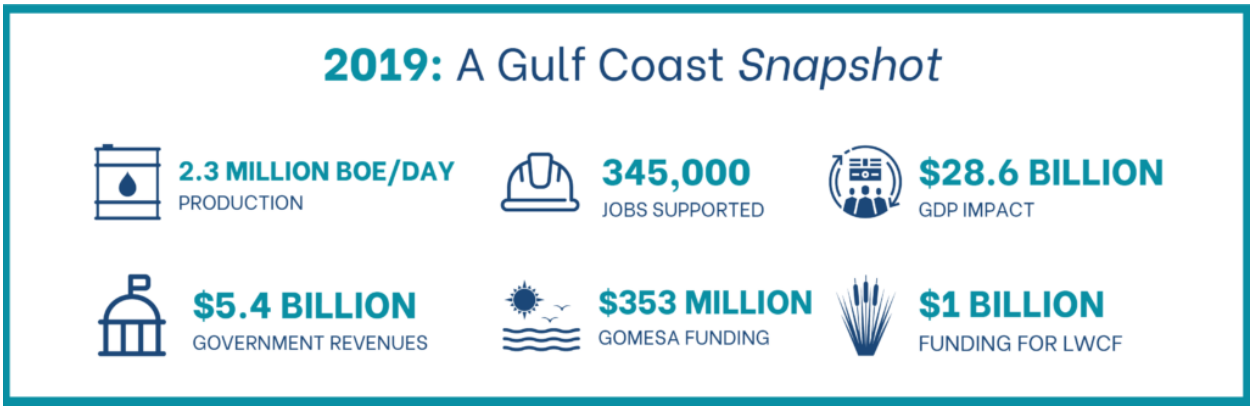
Economic Benefits Of Offshore Oil and Gas

At the same time, the Gulf of Mexico provides enormous economic benefits. As seen in the first attachment, NOIA commissioned a study by the Energy and Industrial Advisory Partners which looked at the job creation and economic contributions of the Gulf. The below chart shows the billions of dollars in economic activity driven by the Gulf, but it is also worth noting that the Gulf of Mexico oil and gas industry contributed some $5.4 billion in 2019 of government revenue and an enormous 345,000 jobs supported.



Figures according to 2020 study performed by Energy and Industrial Advisory Partners

While most of these jobs are along the Gulf Coast, every state has jobs and businesses that are part of the Gulf of Mexico oil and gas industry. These jobs are high-paying and accessible, providing a unique opportunity for economic mobility that many people would not otherwise have[13].

As noted above, the industry generated $5.4 billion in government revenue in 2019. Historically, the offshore oil and gas industry has been an important generator of revenues for the Federal government, as well as state and local governments. Between 2000 and 2018, more than $120 billion in high bids, royalties and rents was generated for the government[14]. Some of these revenues flow back to key conservation programs, such as the Land & Water Conservation Fund (which is funded entirely by offshore oil and gas production) and, beginning in 2021, certain provisions established in the recent Great American Outdoors Acts. In addition, revenues shared with Gulf Coast states through GOMESA are used by state and local governments for a host of vital programs, including wetlands preservation, coastal restoration, flood prevention and hurricane mitigation.[15] Without continued and robust oil and gas production in the Gulf of

[13] https://www.api.org/-/media/Files/Policy/Jobs/Women-and-Minorities-in-oil-natural-gas-industry.pdf

[14] https://revenuedata.doi.gov/explore/?dataType=Revenue&location=NF&mapLevel=State&offshoreRegions=true&period=Fiscal%20Year&year=2019

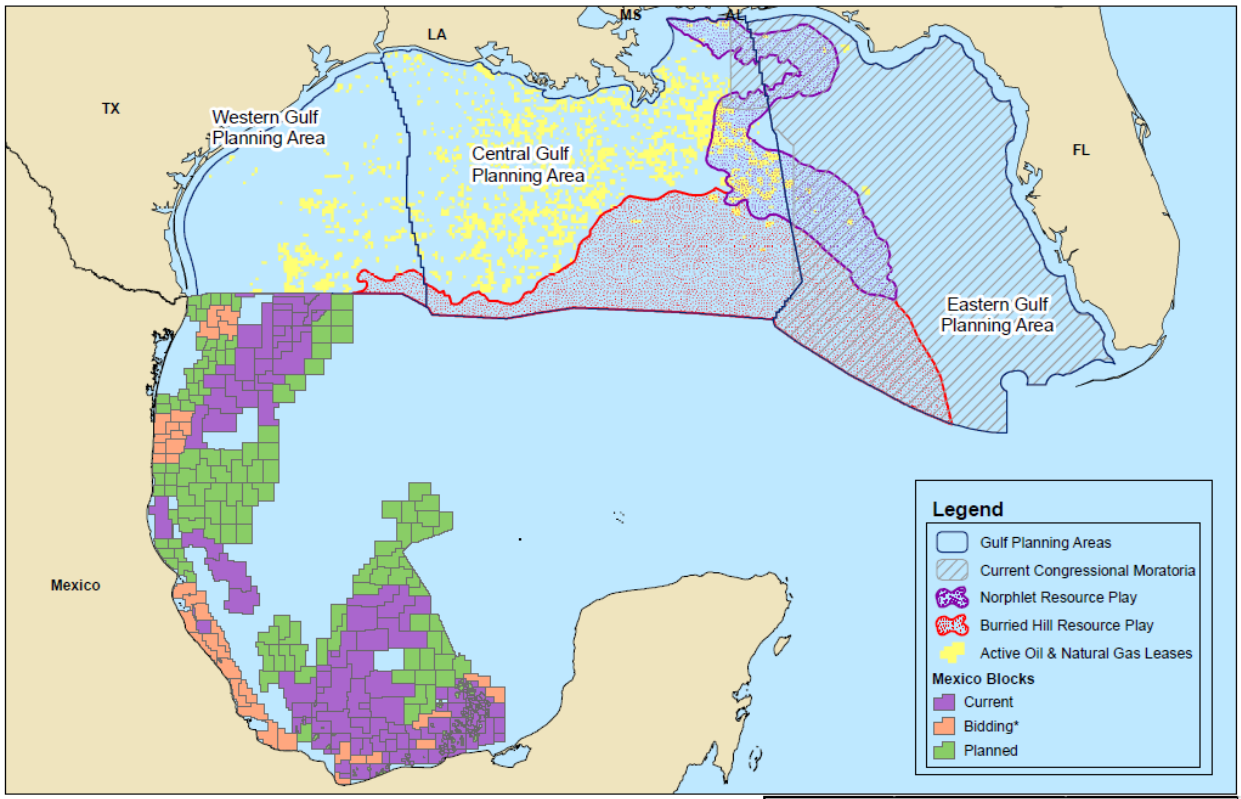
[15] https://www.boem.gov/oil-gas-energy/energy-economics/gulf-mexico-energy-security-act-gomesa

Mexico, it will be more difficult to ensure funding for America's conservation and environmental stewardship programs.

However, these benefits and the enormous economic contributions they make could be threatened by poor policy-making decisions.

Production Will Shift to Foreign Sources, and The Gulf of Mexico Will Be Developed By Mexico

Whatever occurs with domestic energy policy related to the Gulf of Mexico, the fact remains that other countries have rights to explore, develop, and produce in this region. Restricting production in the Gulf of Mexico will not end the production of oil; it will only shift the production to countries like Russia, Chin and Iran. When it comes to the Gulf of Mexico, we have already seen investment shift to the Mexican side of the region. Mexico is already producing energy adjacent to state and federal waters belonging to the United States, and is actively bidding out and considering additional acreage. We believe that a slowdown or cessation of activities in American waters would be little less than a "unilateral disarmament" that would cost us one of the most productive and safe regions for energy development in the country while other countries step in to tap greater global market share and power. .



Gulf of Mexico Oil and Natural Gas Development and Future Opportunities

Resource Estimates Based on 2016 Assessment Data		
Play	Gas (Tcf) UTTR	Oil (Bbl) UTTR
Norphlet	6.81 - 23.61	1.0 - 4.45
Buried Hill	0.0 - 25.35	0.0 - 9.86

ervice Layer Credits: BOEM 2016 National Assessment of Undiscovered Oil and Gas Resources of the U.S. Outer Continental Shelf. DrillingInfo. MarineCadastre.gov. U.S. Navy. https://www.data.boem.gov/Main/Mapping.aspx

*Bidding opened 9/29/2017 and will close 3/27/2018.

Offshore Oil and Gas Can Lead Energy Transition

There is an energy transition that is currently underway. However, this transition cannot occur without the oil and gas industry. The oil and gas industry, including the offshore, has the unique ability, and opportunity, to innovate *and* to scale technological solutions that lead to a lower carbon future. Globally and at home, far too many people still do not have functional access to electricity and energy demand is only going to rise[16]. The energy transition must be made in a way that increases the access, affordability, and reliability of energy for everyone.

The offshore sector is continuously finding ways to shrink its already smaller environmental footprint, and these technologies and innovations can benefit other sectors. Whether you are talking about multi-billion dollar companies traditionally focused on oil and gas developing and investing in offshore wind equipment manufacturing and building renewable energy incubators, the deployment of electric remotely operated vehicles (ROVs) that were developed for the oil and gas industry to monitor offshore wind facilities, or the incorporation of virtual and augmented reality into worker training to reduce risk and the number of physical trips via boat or helicopter offshore, the offshore oil and gas industry is driving efficiency and reducing emissions in a way that will strengthen an energy transition.

The offshore oil and gas industry helped build the first U.S. offshore wind farm offshore Block Island, Rhode Island and is currently involved in wind projects up and down the Atlantic Coast. Block Island showed that the synergy between offshore oil, gas and wind in finding energy solutions should not be discounted. Limiting the health and outlook for the offshore oil and gas industry would remove a key source of engineering expertise, not to mention R&D funding, that could find, scale and deploy the solutions to many of the technical challenges currently associated with the renewable energy production.

[16] https://www.realclearenergy.org/articles/2019/09/11/no_need_for_energy_poverty_110474.html