



**Written Testimony for House Natural Resources Committee Hearing on  
Assessing Domestic Offshore Energy Reserves & Ensuring U.S. Energy Dominance,  
March 20, 2024**

**Submitted by Kendall Dix, national policy specialist at Taproot Earth**

Dear Committee Members,

My name is Kendall Dix. As a former career line cook in New Orleans, I have vivid memories of time as a low wage worker who was forced to work through hurricane evacuations while my family begged me to leave. Through my later work as a sustainable fisheries advocate and then an organizer working in the industrial corridor along the Mississippi River—an area infamously known as Cancer Alley—I am all too aware of the oil and gas industry’s impact on the people and environment of the Gulf Coast. The oil and money flow out, while the pollution remains, the people get poorer and sicker, and the climate disasters get worse every year.

I’m now a policy specialist at Taproot Earth, a global climate justice organization rooted in Slidell, Louisiana. We work with communities across 18 states from the Gulf South up through Appalachia and across the globe. We evolved out of an organization called the Gulf Coast Center for Law and Policy, which was founded in the aftermath of Hurricane Katrina, a climate disaster that killed thousands of people and changed the Gulf South region forever. Taproot Earth is an organization that works with communities to advance solutions around essential resources such as water, energy, and land to ensure that we can address climate change in an ecological and holistic way.

I am honored, excited, and nervous to testify in front of you today, but I am also a bit tired. I’m tired and frustrated that somebody from the climate and environmental world is again being asked to convince you that oil and gas extraction is harming people and the planet and that we should actually do something to stop it. I am exhausted from seeing good people attend funeral after funeral of their loved ones in Cancer Alley while policymakers insist that nothing can be done to prevent their premature deaths.

At every stage of its life cycle from when it is extracted to when it is refined, burned, and/or transformed into forever chemicals that may never break down, oil and gas is toxic to human health and the environment. Not only are these impacts making the planet unlivable, they are disproportionately harming poor, rural, Black, Indigenous, and communities of color who have already suffered under centuries of systemic discrimination in this country. To continue leasing oil and gas extraction in the Gulf of Mexico is to continue sacrificing the region.

As an organization, Taproot Earth works for climate justice. That does mean phasing out fossil fuels, but it also means simultaneously addressing the legacies of racism and domination, so we

can all live, rest, and thrive in the places we call home. Most of the people I know and love in this world live in South Louisiana. Between catastrophic storms, skyrocketing insurance rates, poor water quality, extreme heat waves, and school and housing closures, the climate crisis is displacing people now. The problem is even worse than we thought.

The good news is that we now have viable alternatives to oil and gas, such as wind and solar, that will reduce our energy system's impacts on the environment and make our region more resilient to climate disruption. However, oil and gas infrastructure can directly compete with or block these solutions. You cannot build a wind turbine or run a transmission cable through an oil and gas pipeline without risking another catastrophic oil spill.

More than 18,000 miles of pipelines lie abandoned in the sea floor, in addition to 2,700 wells and 500 drilling platforms. The Government Accountability Office recently released two harrowing reports that show the federal government has failed for years to stop polluters from littering our public lands and waters with their garbage.<sup>12</sup> While some parts of energy policy can be technical or complicated, making sure companies clean up their mess is not one of those issues.

The time has long passed for us to move away from energy sources that poison our people and planet. We can build a world that upholds the rights of everyone to have clean air to breathe, clean water to drink, and no more abandoned wells pipelines in the oceans. That world does not include more fossil fuel extraction.

### **Impacts of Oil and Gas Development on the Gulf of Mexico**

The storm surge that made Hurricane Katrina so devastating was a direct result of the damage caused by decades of oil and gas extraction and its associated pipelines that destroy coastal wetlands and cause sea level rise through the burning of fossil fuels. Emissions drive ocean acidification as well as deadly methane and other toxic pollution. Further, there are documented slow leakages and pipeline accidents related to associated infrastructure, and property values near these sites continue to decrease. Addressing climate change now by ceasing to extract fossil fuels would be just the first step toward repairing the harm the industry has wrought.

**Abandoned Oil and Gas Infrastructure:** Since the 1960s, the Bureau of Safety and Environmental Enforcement (BSEE) has allowed the offshore oil and gas industry to leave 97% of pipelines (18,000 miles) on the seafloor when no longer in use.<sup>3</sup> As mentioned above, this aging oil and gas infrastructure inhibits the development of offshore wind. Unfortunately, many

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<sup>1</sup> U.S. Government Accountability Office, "Offshore Oil and Gas: Interior Needs to Improve Decommissioning Enforcement and Mitigate Related Risks," January 2024, <https://www.gao.gov/assets/d24106229.pdf>

<sup>2</sup> U.S. Government Accountability Office, "Oil and Gas Pipelines: Agencies Should Improve Oversight of Decommissioning," January 18, 2024, <https://www.gao.gov/assets/d24106444.pdf>.

<sup>3</sup> U.S. Government Accountability Office, "Offshore Oil and Gas: Updated Regulations Needed to Improve Pipeline Oversight and Decommissioning," March 19, 2021, <https://www.gao.gov/products/gao-21-293>.

companies who own offshore oil rigs at the end of their lifecycle are no longer financially solvent.<sup>4</sup> To make sure this doesn't happen in the future, the Department of Interior (DOI) must end the practice of allowing lessees and Right of Way holders to decommission pipelines in place. The DOI must require that all pipelines be removed and operators clear the seafloor of all obstructions created by the lease and the pipeline right-of-way operations.

DOI should also complete and issue its financial assurance rulemaking and require lessees to hold fully vested trust funds and/or a sinking trust fund and supplemental financial assurance for all infrastructure and wells. The recent Fieldwood Bankruptcy and the still existing gap between the cost to decommission all associated infrastructure reveals an eminent crisis if not met with appropriate government actions. The government must require cash on hand to cover asset retirement obligations if companies seek to profit from the collective resources of the U.S.

For infrastructure in the ocean that has already been decommissioned in place, the Secretary of Interior should order all lessees to remove the pipelines immediately.<sup>5</sup> 30 CFR § 250.1754 establishes clear authority to the BSEE Regional Supervisor to order the removal of a pipeline decommissioned in place if that pipeline constitutes an obstruction. These pipelines provide no physical or material benefit to the American public, but they do impose an artificial limit on how much area can be available for offshore wind development.

We recommend the establishment of an "Idle Iron Pipeline" program to make this administratively feasible. The Department should identify which of the 18,000 miles of decommissioned pipelines in place obstruct future offshore wind, and prioritize their expedient removal. If the lessees are not financially solvent, DOI should be funded to remove this infrastructure itself, and Congress should fund this activity with a tax on companies that benefit from offshore oil and gas drilling. Anything less than aggressively removing oil and gas infrastructure no longer in use delays the buildout of American offshore wind and functions as a de facto subsidy to the oil and gas industry.

Unfortunately, offshore oil and gas infrastructure and proposed development in federal waters hinder transition to renewable sources. For example, oil and gas rigs require a 500-ft setback for and active oil pipelines require a 200-ft setback as noted in a July 2022 memo by Michael Celata, BOEM's Gulf of Mexico Regional Director.<sup>6</sup> This makes sense because interactions between turbines and oil rigs/pipelines could cause oil spills or other dangerous disasters, but it also means that you can't build anything—including offshore wind infrastructure anywhere near oil infrastructure. With so much oil and gas infrastructure in the Gulf of Mexico, otherwise viable wind energy areas have been and will continue to be limited.

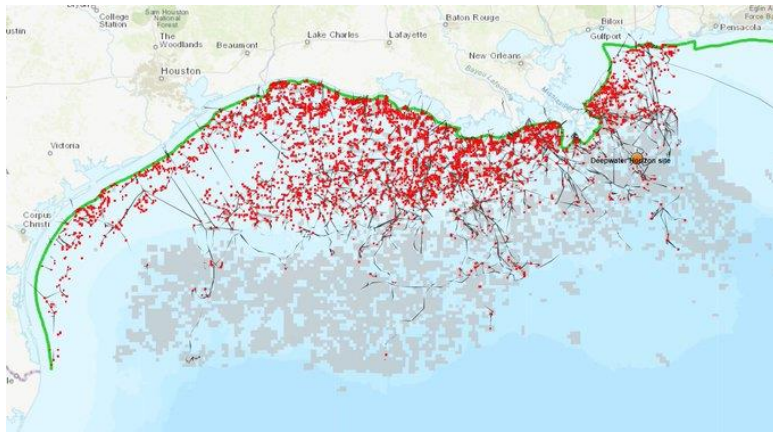
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<sup>4</sup> Wolf, Alex, "Bankruptcies Fueling Environmental Crisis at Abandoned Oil Wells," Bloomberg Law, September 2, 2021, <https://news.bloomberglaw.com/bankruptcy-law/bankruptcies-fueling-environmental-crisis-at-abandoned-oil-wells>.

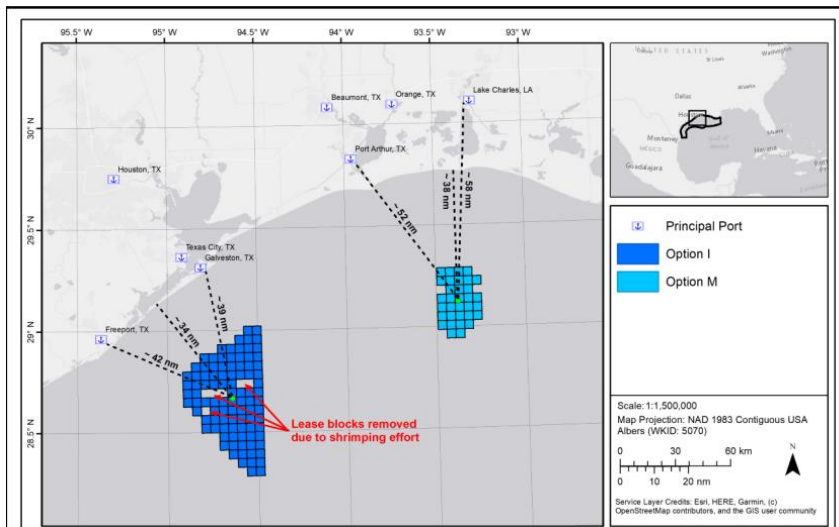
<sup>5</sup> 30 CFR § 250.1754.

<sup>6</sup> Celata, Michael, "Request for Concurrence on Preliminary Wind Energy Areas for the Gulf of Mexico Area Identification Process Pursuant to 30 C.F.R. § 585.211(b)," Memorandum dated July 20, 2022, p. 13, <https://www.boem.gov/sites/default/files/documents/Draft%20Area%20ID%20Memo%20GOM%20508.pdf>.

This is a map of oil and gas drilling platforms both historical and active, pipelines, and active leases in the Gulf of Mexico:<sup>7</sup> It affirms that Southeastern Louisiana has far too much oil and gas infrastructure for wind energy to be developed safely:



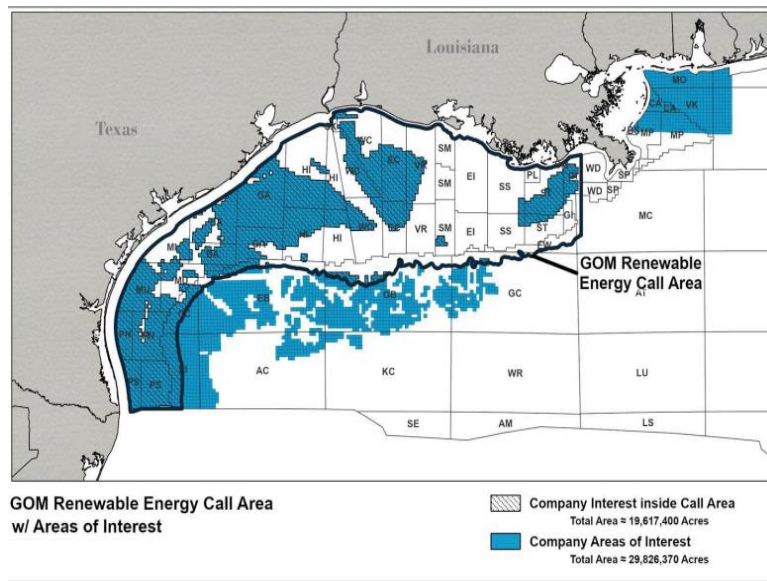
For reference, here are the Wind Energy Areas that BOEM chose:



Here is a map of industry interest from the July 20 Bureau of Ocean Energy Management (BOEM) memo:<sup>8</sup>

<sup>7</sup> Fracktracker, Oil and Gas Infrastructure in the Gulf of Mexico  
<https://maps.fracktracker.org/latest/?appid=0b3260e4417d4299b750b6b2447d7f33>.

<sup>8</sup> Celata, Michael, "Request for Concurrence on Preliminary Wind Energy Areas for the Gulf of Mexico Area Identification Process Pursuant to 30 C.F.R. § 585.211(b)," Memorandum dated July 20, 2022, p. 32,  
<https://www.boem.gov/sites/default/files/documents/Draft%20Area%20ID%20Memo%20GOM%20508.pdf>.



Comments by regional director Celata at an August 22, 2022 meeting hosted by BOEM confirm what these maps indicate. Celata was asked directly whether oil and gas infrastructure that had been decommissioned in place was inhibiting offshore wind development. He answered that the proposed Wind Energy Areas (WEAs) were selected because wind companies would be able to run new infrastructure "around" the existing oil infrastructure to the shore, unlike most of the rest of the coast which is too thick with oil gear to make it practicable.

Further, BOEM has made previous decisions to site oil and gas infrastructure in southeast Louisiana, and we can only conclude that these decisions are a direct cause of the region not being selected by BOEM for offshore wind development. As BOEM may begin to permit dangerous and unnecessary offshore carbon capture and storage infrastructure, these pipeline conflicts will only continue to grow. This is particularly troubling because the Gulf of Mexico has some of the highest net technical wind energy potential of any region.<sup>9</sup> Taproot Earth's view is that carbon capture and storage is a false solution that will extend the life of fossil fuels and dump more pollution in overburdened frontline communities.

**Ocean Acidification:** The emissions from oil and gas extraction are fueling the acidification of the ocean.<sup>10</sup> The risks to marine goods and services amplify with increasing acidification causing shifts to macroalgal dominance, habitat degradation and a loss of biodiversity at seep sites in the tropics, the sub-tropics and on temperate coasts.<sup>11</sup> Based on this empirical

<sup>9</sup> Lopez, Anthony et al. "Offshore Wind Energy Technical Potential for the Contiguous United States, National Renewable Energy Laboratory, August 15, 2022, <https://www.nrel.gov/docs/fy22osti/83650.pdf>.

<sup>10</sup> Xiangfeng Zeng, Xijuan Chen, Jie Zhuang, "The positive relationship between ocean acidification and pollution," Marine Pollution Bulletin, Volume 91, Issue 1, 2015, Pages 14-21, ISSN 0025-326X, <https://doi.org/10.1016/j.marpolbul.2014.12.001>.

<sup>11</sup> Jason M. Hall-Spencer, Ben P. Harvey; Ocean acidification impacts on coastal ecosystem services due to habitat degradation. Emerg Top Life Sci 10 May 2019; 3 (2): 197–206. doi: <https://doi.org/10.1042/ETLS20180117>.

evidence, scientists expect ocean acidification to have serious consequences for all of us who are dependent on coastal protection, fisheries and aquaculture.<sup>12</sup> If we don't stop extracting fossil fuels, we risk the collapse of ocean ecosystems.

**Drilling Disasters:** Offshore oil drilling can lead to catastrophic drilling disasters, such as the BP Drilling Disaster of 2010.<sup>13</sup> The BP disaster directly killed 11 human beings and millions of living creatures that live in or around the Gulf of Mexico. In total, it caused an estimated \$17.2 billion in damage to the Gulf of Mexico ecosystem.<sup>14</sup> The BP drilling disaster is an example of the catastrophic damage done when offshore drilling goes wrong, but even without gross negligence and recklessness, offshore drilling has negative impacts on the marine, coastal and human environments.

**Slow Leakage of Oil and Gas at Drill Sites:** In 2018, scientists discovered that a 14-year-old oil spill owned by Taylor Energy was leaking much more oil than previously thought.<sup>15</sup> Taylor had been caused by a hurricane-induced mudslide. Taylor Energy tried to cover up the spill, and it was mostly ignored by regulators until citizen scientists visually documented the spill's oil sheen during a monitoring flight in 2010. Oil spills caused by hurricanes are a guaranteed outcome when you permit oil and gas infrastructure in the Gulf of Mexico.

**Emissions from Normal Operations:** Methane, a powerful greenhouse gas, is an inevitable byproduct of oil and gas extraction. Each year, oil and gas operations emit an amount of methane that is equivalent to 211 million metric tons of carbon dioxide, or about 4 percent of total U.S. emissions.<sup>16</sup> Even when operations are going well, the extraction sector is a major contributor to the climate crisis before the fuels are even burned.

**Pipeline accidents:** Offshore oil drilling requires the building of pipelines to move the oil and gas onshore where it reaches refineries and other pipeline networks. These pipelines leak and sometimes explode. Over 2,600 hazardous gas pipeline leaks in the United States caused more than \$4 billion in damages and emergency services, killed 122 people, and released 26.6 billion cubic feet of fuel as methane or carbon dioxide over a 10 year period.<sup>17</sup> The only way to prevent these accidents from happening is to stop extracting oil and gas and transporting it via pipeline.

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<sup>12</sup> Id.

<sup>13</sup> Department of Justice, "U.S. and Five Gulf States Reach Historic Settlement with BP to Resolve Civil Lawsuit Over Deepwater Horizon Oil Spill," October 15, 2015, <https://www.justice.gov/opa/pr/us-and-five-gulf-states-reach-historic-settlement-bp-resolve-civil-lawsuit-over-deepwater>.

<sup>14</sup> Bishop, R.C. et al. "Putting a value on injuries to natural assets: The BP oil spill," *Science* 356(6335), 2017, doi:10.1126/science.aam8124

<sup>15</sup> Dears, Darryl, "A 14-Year-Long Oil Spill in the Gulf of Mexico Verges on Becoming One of the Worst in US History," *The Washington Post*, October 23, 2018, [https://www.agricanto.org/uploads/5/2/6/3/52634281/a\\_14-year-long\\_oil\\_spill\\_in\\_the\\_gulf\\_of\\_mexico.pdf](https://www.agricanto.org/uploads/5/2/6/3/52634281/a_14-year-long_oil_spill_in_the_gulf_of_mexico.pdf).

<sup>16</sup> United States Environmental Protection Agency, "Estimates of Methane Emissions by Segment in the United States (2020)," <https://www.epa.gov/natural-gas-star-program/estimates-methane-emissions-segment-united-states>

<sup>17</sup> Dutzik, Tony, Abraham Scarr, and Matt Casale, "Methane Gas Leaks: Frequent leaks are resulting in death, injury and other damage to our health and environment," U.S. PIRG, Environment America, and Frontier Group, June 2022, [https://publicinterestnetwork.org/wp-content/uploads/2022/05/USP-EA-FG-Methane-Gas-Leaks-Jun22-screen\\_0.pdf](https://publicinterestnetwork.org/wp-content/uploads/2022/05/USP-EA-FG-Methane-Gas-Leaks-Jun22-screen_0.pdf)

**Other toxic emissions:** After oil and gas is extracted from the Gulf of Mexico, it arrives onshore for refining. The family of products derived from oil and gas is vast. It includes gasoline, plastics, fertilizers, and more.<sup>18</sup> The factories where these products are refined are located all over the country, but they are heavily concentrated in the Gulf South and other places near the sites of extraction.<sup>19</sup> While Black and Hispanic people suffer nearly 48 percent of the pollution exposure from such sites, they receive barely a fifth of the total jobs.<sup>20</sup> The disparity is particularly pronounced in the oil and gas industry, especially for Black workers, who hold just 9 percent of the jobs in oil and gas extraction and earn 23 percent less than their white counterparts.<sup>21</sup> Race – not poverty – is the strongest predictor of exposure to PM 2.5, a health-damaging particle created when fossil fuels are burned.<sup>22</sup> Environmental racism is baked into the fossil fuel extraction industry and its downstream toxic affiliates.

**Decreased property values:** Home prices along the Gulf Coast are already much lower than on the Pacific or Atlantic Coasts.<sup>23</sup> This makes sense given the amount of fossil fuel extraction along the Gulf Coast.<sup>24</sup>

We know that fossil fuel development can cause property values to fall. Applying a research design based on the openings and closings of 1,600 industrial plants to rich data on housing markets and infant health, one study found that plant openings lead to 11 percent declines in housing values within 0.5 mile.<sup>25</sup> The same study found that a plant's operation is associated with a roughly 3 percent increase in the probability of low birth weight within 1 mile. It reasons that people don't want to live near fossil fuel infrastructure because they correctly associate it with poor health impacts. In order to protect people's health and wealth stored in the value of their homes, BOEM should cease permitting new fossil fuel infrastructure.

**Land loss:** Oil and gas extracted offshore must eventually come onshore for processing and transportation via pipeline. The building of pipelines requires digging up the earth to bury them. In coastal habitats, this can lead to land loss. In Louisiana, Outer Continental Shelf pipelines covered 480 square miles of wetlands and land, and the navigation channels covered 137

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<sup>18</sup> Department of Energy, "Products Made From Oil and Gas," <https://www.energy.gov/sites/prod/files/2019/11/f68/Products%20Made%20From%20Oil%20and%20Natural%20Gas%20Infographic.pdf>.

<sup>19</sup> Shaw, Al, Lylla Younes and Ava Koffman, "The Most Detailed Map of Cancer-Causing Industrial Air Pollution in the U.S.," ProPublica, November 2, 2021, <https://projects.propublica.org/toxmap/>.

<sup>20</sup> Neuhauser, Alan, "Minority Communities Near Industrial Sites Get Pollution, Not Jobs," US News and World Report, October 1, 2018, <https://www.usnews.com/news/national-news/articles/2018-10-01/minority-communities-near-industrial-sites-get-pollution-not-jobs>.

<sup>21</sup> Id.

<sup>22</sup> Mikati, Ihab et al. "Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status," American Journal of Public Health 108, 2018, p. 480-485, <https://doi.org/10.2105/AJPH.2017.304297>.

<sup>23</sup> National Association of Realtors, "County Median Home Prices

<sup>24</sup> US Minerals Management Service, " [http://www.mms.gov/ld/PDFs/OCSstatusMap8e\(3\).pdf](http://www.mms.gov/ld/PDFs/OCSstatusMap8e(3).pdf)

<sup>25</sup> Currie J. et al. "Environmental Health Risks and Housing Values: Evidence from 1,600 Toxic Plant Openings and Closings." Am Econ Rev. 2015 Feb;105(2):678-709. doi: 10.1257/aer.20121656. PMID: 27134284; PMCID: PMC4847734.

square miles, representing about 11 percent of the Louisiana coast.<sup>26</sup> The construction of pipelines related to oil and gas production in the Outer Continental Shelf of the Gulf of Mexico "can cause locally intense habitat changes, thereby contributing to the loss of critically important land and wetland areas."<sup>27</sup> Louisiana has now lost more than 2,000 miles of land, roughly equivalent to the state of Delaware.<sup>28</sup> The National OCS Oil and Gas Leasing Program is directly responsible for a portion of this land loss.

Land loss makes the region more vulnerable to hurricanes, as we saw during Hurricanes Katrina, Ida and others. When Hurricane Ida struck in 2021, it remained a Category 3 hurricane long after "landfall" because so little land was left to stop the storm.<sup>29</sup> When those hurricanes hit, they can cause spills at the toxic facilities that process oil and gas. After Hurricane Ida, there were more than 2,000 chemical spills.<sup>30</sup> New oil and gas extraction would only make future impacts worse.

Fossil fuels are primarily extracted to be burned for energy. When they are burned, they create toxic pollution. Exposure to this pollution causes lung cancer.<sup>31</sup> Like other forms of pollution, this air pollution from burning fossil fuels disproportionately impacts poor people and people of color.<sup>32</sup>

**Pollution from oil and gas derivatives:** Oil and gas is used to make plastics, which are harmful to human health at every stage of their life cycles.<sup>33</sup> Once plastic reaches the environment in the form of macro- or microplastics, it slowly fragments into smaller particles, where it contaminates all areas of the environment (air, water, and soil), accumulates in food chains, and releases toxic additives or concentrates additional toxic chemicals in the environment, making them bioavailable again for direct or indirect human exposure.<sup>34</sup> This

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<sup>26</sup> Johnston, James & Cahoon, Donald & La Peyre, Megan, "Outer Continental Shelf (OCS)-Related Pipelines and Navigation Canals in the Western and Central Gulf of Mexico: Relative Impacts on Wetland Habitats and Effectiveness of Mitigation." U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico Region, New Orleans, LA. OCS Study MMS 2009-048. 200 pp..

<sup>27</sup> Id.

<sup>28</sup> United States Geological Service, "Louisiana's Changing Coastal Wetlands," July 12, 2017, <https://www.usgs.gov/news/national-news-release/usgs-louisianas-rate-coastal-wetland-loss-continues-slow>

<sup>29</sup> Pappas, Stephanie, "Why did Hurricane Ida stay so strong for so long?," Live Science, August 30, 2021, <https://www.livescience.com/hurricane-ida-brown-ocean.html>.

<sup>30</sup> Baurick, Tristan, "Reports of Hurricane Ida oil, chemical spills escalate in Louisiana waters," nola.com, September 8, 2021, [https://www.nola.com/news/environment/article\\_0d4b138c-10dc-11ec-8269-cfc16666a808.html](https://www.nola.com/news/environment/article_0d4b138c-10dc-11ec-8269-cfc16666a808.html).

<sup>31</sup> Chen G et al. "Traffic-related air pollution and lung cancer: A meta-analysis," *Thorax* 2015 May;6(3):307-18. doi: 10.1111/1759-7714.12185. Epub 2015 Apr 24. PMID: 26273377; PMCID: PMC4448375.

<sup>32</sup> Park YM, Kwan MP. Understanding Racial Disparities in Exposure to Traffic-Related Air Pollution: Considering the Spatiotemporal Dynamics of Population Distribution. *Int J Environ Res Public Health*. 2020 Feb 1;17(3):908. doi: 10.3390/ijerph17030908. PMID: 32024171; PMCID: PMC7037907.

<sup>33</sup> Azoulay, David et al. "Plastic & Health The Hidden Costs of a Plastic Planet," February 2019, <https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf>.

<sup>34</sup> Id.



affects cardiovascular, renal, gastrointestinal, neurological, reproductive, and respiratory systems, impacts include cancers, diabetes, neuro-, reproductive, and developmental toxicity.<sup>35</sup>

Per- and polyfluoroalkyl substances (PFAS) are chemicals that are a part of the plastics family. PFAS are synthetic substances that are toxic in minuscule amounts and do not break down in the environment.<sup>36</sup> They end up in the water supply, eventually accumulating in the human body over time and causing a range of serious health effects.<sup>37</sup> These “forever chemicals” are used in fracking fluid for oil and gas, including in offshore oil drilling in the Gulf of Mexico, where they escape to the broader environment.<sup>38</sup>

Chemical fertilizers are responsible for 2.4 percent of global emissions, or more than the aviation industry.<sup>39</sup> Fertilizers are derived from oil and gas and processed in highly toxic and greenhouse gas-intensive refineries.<sup>40</sup> About 20 percent of these nutrients are lost to runoff or leach into the groundwater.<sup>41</sup> This nutrient pollution eventually flows to the ocean where it fuels harmful algae blooms that kill marine life through hypoxia and/or produce airborne toxins that cause diseases in human beings.<sup>42</sup> Meanwhile, the excess nitrogen and phosphorus in the groundwater leads to a variety of human health problems including blue baby syndrome.<sup>43</sup> Nutrient pollution threatens the future of wild capture fisheries and sustainable aquaculture, endangering the nation’s food security.

Pesticides are hazardous to human, biodiversity, and ecosystem health.<sup>44</sup> Many pesticides such as neonicotinoids, pyrethroids, and glyphosate formulants are produced from gas and oil. They cause cancer in human beings.<sup>45</sup>

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<sup>35</sup> Id.

<sup>36</sup> Kelso, Matt, “Mapping Pfas: Forever Chemicals In Oil & Gas Operations,” Fracktracker Alliance, July 15, 2021, <https://www.fracktracker.org/2021/07/mapping-pfas-forever-chemicals-in-oil-gas-operations/>

<sup>37</sup> Id.

<sup>38</sup> Center for Biological Diversity, “Toxic Waters: How Offshore Fracking Pollutes the Gulf of Mexico,” July 2021, <https://www.biologicaldiversity.org/campaigns/fracking/pdfs/Toxic-Waters-offshore-fracking-report-Center-for-Biological-Diversity.pdf>.

<sup>39</sup> Huber, Bridget, “Report: Fertilizer responsible for more than 20 percent of total agricultural emissions,” FERN, November 1, 2021, [https://thefern.org/ag\\_insider/report-fertilizer-responsible-for-more-than-20-percent-of-total-agricultural-emissions/](https://thefern.org/ag_insider/report-fertilizer-responsible-for-more-than-20-percent-of-total-agricultural-emissions/).

<sup>40</sup> Chai, R., Ye, X., Ma, C. et al. Greenhouse gas emissions from synthetic nitrogen manufacture and fertilization for main upland crops in China. *Carbon Balance Manage* 14, 20 (2019). <https://doi.org/10.1186/s13021-019-0133-9>

<sup>41</sup> Howarth, R. et. al, “Ecosystems and Human Wellbeing: Policy Responses,” Millennium Ecosystem Assessment (MA), Volume 3. Chapter 9: Nutrient Management: pp. 295-311.

<sup>42</sup> National Oceanic and Atmospheric Association, “What is a harmful algae bloom?” <https://www.noaa.gov/what-is-harmful-algal-bloom>.

<sup>43</sup> Knobeloch, L. et al. “Blue babies and nitrate-contaminated well water.” *Environmental health perspectives*, vol. 108,7, 2000, 675-8. doi:10.1289/ehp.00108675.

<sup>44</sup> Demeneix BA. How fossil fuel-derived pesticides and plastics harm health, biodiversity, and the climate. *Lancet Diabetes Endocrinol.* 2020 Jun;8(6):462-464. doi: 10.1016/S2213-8587(20)30116-9. PMID: 32445732; PMCID: PMC7239621.

<sup>45</sup> Bassil KL, et al. “Cancer health effects of pesticides: systematic review,” *Can Fam Physician.* 2007 Oct;53(10):1704-11. PMID: 17934034; PMCID: PMC2231435.

**Ecosystem services:** The Gulf of Mexico has multiple important other uses of the sea and seabed, including fisheries, tourism and recreation, shipping, and other anticipated uses such as offshore wind or offshore carbon capture and storage. Offshore oil production conflicts with all of them. The natural environment of the Gulf of Mexico provides numerous valuable ecosystem services,<sup>46</sup> including: Supporting services (nutrient balance, hydrological balance, biological interactions, and soil and sediment balance); Regulating services (pollutant attenuation, water quality, gas regulation, climate regulation, hazard moderation); provisioning services (air supply, water quantity, food, raw materials, medicinal resources, ornamental resources); and cultural services (aesthetics and existence, spiritual and historic, science and education, recreational opportunities).

These ecosystem services are provided “for free” by nature but provide economic benefit to other sectors. Some of these benefits such as fisheries landings or the tourism industry can be more easily quantified. In 2003, one study estimated that the Gulf of Mexico ocean economy generated an estimated \$32 billion, or more than \$52 billion in 2022 dollars.<sup>47</sup> Other estimates put the annual economic value of the Gulf of Mexico at \$2 trillion, or \$2.73 trillion adjusted for inflation.<sup>48</sup>

Some ecosystem services such as spiritual value can be impossible to quantify and are invaluable. Others such as the ocean’s ability to attenuate pollution or absorb carbon dioxide can be difficult to quantify but the economic cost of reproducing them through mechanical means would be astronomical. Whenever we choose to sacrifice some part of the Gulf of Mexico for oil and gas production, we should account for the accompanying decrease in ecosystem services.

## **Moving Forward**

We now have viable alternatives to oil and gas, such as justly sourced renewable wind and solar, that will reduce our energy system’s impacts on the environment and make our region more resilient to climate disruption. However, oil and gas infrastructure directly competes with or blocks these solutions such as offshore wind. This does not have to be the case where the federal government can play a major role in leading the energy transition.

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<sup>46</sup> “5 Ecosystem Services in the Gulf of Mexico.” National Research Council. 2013. An Ecosystem Services Approach to Assessing the Impacts of the Deepwater Horizon Oil Spill in the Gulf of Mexico. Washington, DC: The National Academies Press. doi: 10.17226/18387.

National Academies of Sciences, Engineering, and Medicine. 2013. An Ecosystem Services Approach to Assessing the Impacts of the Deepwater Horizon Oil Spill in the Gulf of Mexico. Washington, DC: The National Academies Press. <https://doi.org/10.17226/18387>.

<sup>47</sup> Colgan, Charles. 2008. “The Ocean Economy of the Gulf of Mexico in National Perspective” in *The Changing Coastal and Ocean Economics of the Gulf of Mexico*. Edited by Judith Kildow, Charles Colgan, and Linwood Pendleton, University of Texas Press. (pp. 2, 3).

<sup>48</sup> Shepherd, Andrew N., “Economic Impact of Gulf of Mexico Ecosystem Goods and Services and Integration Into Restoration Decision-Making,” *Gulf of Mexico Science*, 2013(1–2), pp. 10–27, <https://www.disl.org/assets/uploads/publications/goms-31-01-10-27.pdf>

For the people of the Gulf South, degrees of warming are not an abstraction or a future problem. This year, we documented a full 12 months of global temperatures that were 1.5 degrees celsius above historical measures, the warming threshold scientists had said we should not exceed in 2030 to avoid the worst impacts of the climate crisis. We need to act now.

## **Recommendations**

- **Invest in Justly Sourced Renewable Energy.** We now have viable alternatives to fossil fuels that can meet our national energy needs and do not accelerate the climate crisis. Peer-reviewed studies have demonstrated viable pathways to transition our energy system to 100 percent renewable energy.<sup>49</sup> This transition to renewable energy would pay for itself in about 6 years.<sup>50</sup> Renewable energy is now less expensive than fossil fuels. Almost two-thirds of newly installed renewable power in 2021 had lower costs than the cheapest coal-fired option in the world's top 20 economies. Renewable energy is safer, cleaner, and cheaper than offshore oil and gas drilling. Simply put, we can best meet our national energy needs by transitioning away from fossil fuels and transitioning as rapidly as possible to renewable energy made from materials that are sustainably sourced and respect Indigenous sovereignty. From "Principles of a Just Transition in Offshore Wind Energy":<sup>51</sup>
  - **Supply Chains and Life Cycles compatible with Zero Waste, Circular Economy Principles, and Ecological Mindfulness:** While offshore wind energy does not create greenhouse gasses emissions, its production, transportation, and maintenance can produce emissions and waste. We must advocate for local manufacturing in existing industrial areas to support, protect, and revitalize local production capacity where applicable and in accordance with local frontline community priorities to avoid transportation emissions.
  
- **Clean Up the Ocean:**
  - **Terminate the Rigs-to-Reef Program:** The Rigs-to-Reef program encourages platforms to be left in place (or toppled or removed and moved to a predetermined reefing location) and placed in a state-driven and funded rigs-to-reefs program, as an alternative option to the requirement of removal. Naturally this option has become attractive to oil and gas operators because it is less expensive to "reef" a structure instead of removing it. Today, there are more than 515 "reefed" rigs on the seafloor in federal waters, not counting "reefed structures" in state waters. Because reefed structures require a mandatory buffer of 500 feet per rig, we strongly recommend the termination of this program so as to not impede the buildout of domestic renewable energy.

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<sup>49</sup> Khalili, Siavash et al. "On the History and Future of 100% Renewable Energy Systems Research," IEEE Access. 10, 2022, 1-1. 10.1109/ACCESS.2022.3193402.

<sup>50</sup> Jacobson, Mark Z. et al., "Low-cost solutions to global warming, air pollution, and energy insecurity for 145 countries," Energy Environ. Sci., 2022, 15, 3343

<sup>51</sup> UPROSE, Rogue Climate, Taproot Earth, and Climate Justice Alliance, "Principles for a Just Transition in Offshore Wind Energy," March 2023, [https://taproot.earth/wp-content/uploads/2023/03/JustTransition-OffshoreWindEnergy\\_v2.pdf](https://taproot.earth/wp-content/uploads/2023/03/JustTransition-OffshoreWindEnergy_v2.pdf).

- Disclose Progress of Idle Iron: Idle Iron is a policy established in Notice to Lessees (NTL) No. 2010-G05<sup>52</sup> and updated with NTL No. 2018-G03<sup>53</sup> to address timelines associated with the completion of platform removal requirements and well plug and abandonment. BSEE introduced Idle Iron to prevent “inactive facilities and structures from littering the Gulf of Mexico by requiring companies to dismantle and responsibly dispose of infrastructure after they plug non-producing wells.” The last known structural Idle Iron list contained over 600 platforms as of 2010.<sup>54</sup> It’s critical that there is a public disclosure of the progress of this program. Idled platforms not only pose both a real time threat with hazards, but with a mandatory buffer of 500 feet per rig, substantially constrain the future scale of offshore wind.
- Jobs: Legacy oil and gas infrastructure litters the ocean floor, especially in the Gulf of Mexico. We should increase federal funding to put people to work cleaning up the ocean floor to make communities whole again and aid transmission. For all future leases, when an oil and gas operator signs a lease with BOEM, they should agree to remove all equipment and clear the seafloor when the infrastructure is no longer useful for operation.<sup>55</sup>

Thank you again for the opportunity to testify.

Sincerely,

Kendall Dix  
Taproot Earth

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<sup>52</sup> US BOEMRE (2010). Notice to lessees and operators of federal oil and gas leases and pipeline right-of-way holders in the Outer Continental Shelf, Gulf of Mexico OCS region. NTL No. 2010- G05.  
<https://www.bsee.gov/sites/bsee.gov/files/notices-to-lessees-ntl/notices-to-lessees/10-g05.pdf>

<sup>53</sup> US BOEM (2018). Idle Iron Decommissioning Guidance for Wells and Platforms. NTL No. 2018-G03  
<https://www.bsee.gov/sites/bsee.gov/files/notices-to-lessees-ntl/ntl-2018-g03.pdf>

<sup>54</sup> Keen, Elena. The Billion Dollar Brewing in the Gulf. <https://www.ecomagazine.com/in-depth/featured-stories/the-billion-dollar-problem-brewing-in-the-gulf>

<sup>55</sup> BOEM, “OIL AND GAS LEASE OF SUBMERGED LANDS UNDER THE OUTER CONTINENTAL SHELF LANDS ACT,” Sec. 22(a), <https://www.boem.gov/sites/default/files/about-boem/Procurement-Business-Opportunities/BOEM-OCS-Operation-Forms/BOEM-2005.pdf>.