

Climate Change Alert

Akin Gump
STRAUSS HAUER & FELD LLP

What's Next for Innovation in the U.S. Oil, Gas and Coal Sectors under the Biden-Harris Administration?

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Key Points

- In the lead-up to November's COP26 meeting in Glasgow, the United States has joined much of the rest of the world in its pursuit of a clean-energy economy that reduces emissions and environmental impacts from fossil-based energy sources.
- The Biden-Harris administration's government-wide approach to addressing climate change throughout all industries puts an unprecedented degree of pressure on traditional energy sources to prioritize innovation in order to sustain long-term viability.
- The oil, gas and coal sectors need to navigate this uncertain regulatory landscape with a flexible, yet strategic, approach. Prudent companies will embrace funding opportunities and partnerships focusing on new clean-energy and low-emission technologies that use fewer resources, predict and minimize environmental impacts and incorporate renewable energy, all while satisfying increasing energy demands.

Introduction

The first seven months of the Biden-Harris administration's tenure, which included a historic [Climate Leaders Summit](#) and Group of 7 Nations (G7) meeting, are behind us. This administration has brought an expected, but unprecedented, focus on climate change and the transition to a lower-emission future.

Earlier this year, the United States held a two-day gathering of heads of state and representatives from international organizations, businesses, subnational governments and indigenous communities to discuss the need for the United States and other nations to fund and support energy innovation to decrease the extraction and consumption of fossil fuels. Climate Envoy John Kerry, Secretary of Energy Jennifer Granholm and others on the U.S. side identified a number of specific technologies during the summit and its lead up, such as renewable hydrogen; carbon capture, utilization and storage (CCUS); batteries; low-carbon industrial fuels; and offshore wind. However, the leaders largely refrained from offering concrete plans and

Contact Information

If you have any questions concerning this alert, please contact:

Stacey H. Mitchell

Partner
shmitchell@akingump.com
Washington, D.C.
+1 202.887.4338

David H. Quigley

Partner
dquigley@akingump.com
Washington, D.C.
+1 202.887.4339

Stephen M. Boone Jr.

Partner
sboone@akingump.com
Houston
+1 713.250.3532

Cynthia M. Mabry

Partner
cmabry@akingump.com
Houston
+1 713.220.8130

Christopher A. Treanor

Counsel
ctreanor@akingump.com
Washington, D.C.
+1 202.887.4551

Bryan C. Williamson

Associate
bwilliamson@akingump.com
Washington, D.C.
+1 202.887.4576

proposals. Instead, most participants pledged to flesh out specifics and bring them to the UN Climate Change Conference (COP26) in Glasgow this November.

Then, in June, President Biden and the leaders of Canada, France, Germany, Italy, Japan and the United Kingdom reaffirmed the promises their countries made under the Paris Agreement. More specifically, the leaders pledged to cut greenhouse gas emissions in half and “overwhelmingly decarbonize[]” their power systems by 2030, conserve or protect at least 30 percent of land and oceans by 2030 and stop funding international coal projects that lack CCUS technology. While the G7 nations identified plans to provide funding to hasten the shift from fossil-based energy sources toward renewables in most key sectors (including the power, transportation, industry, construction, agriculture and forestry sectors), they did not commit to phasing out the use of oil, gas or coal by any date, or at all.

In this article, we assess the short- and medium-term future of fossil fuels in the United States in the wake of the Summit and G7 meetings and discuss the federal energy innovation landscape we can expect to see over the next several years.

I. The Future of Fossil Fuel Policy

A. Current State of Play

The overarching takeaway from these meetings is that developed nations across the world continue to make comments evincing resolute commitments to transition further away from fossil fuels, with a particular focus on coal. In April, United Nations Secretary General António Guterres called for developed countries to phase out coal by 2030 and for others to phase it out by 2040, and South Korean President Moon Jae-in said his country would end public financing for overseas coal power plants. In late June, the United Kingdom expedited its deadline for phasing out coal-generated electricity in Great Britain to October 2024. And though China’s coal power generation is increasing, President Xi said China was committed to begin decreasing its coal consumption by 2025.

Domestically, recent Biden-Harris administration decisions—such as the U.S. Environmental Protection Agency’s (EPA) decision to maintain the Trump administration’s revisions to the coal combustions residuals rule and the Bureau of Land Management’s decision to reduce royalty rates for over 16 million tons of coal in Gunnison County, Colorado—signal that domestic coal production may persist for the next several years. Still, as discussed in greater detail below, this administration is poised to attempt to use federal policy to speed up the eventual retirements of the remaining 200 coal-fired electric utility plants. In an attempt to recover some value from retiring units, many utilities and merchant coal plants are converting them to natural gas to easily plug into existing transmission infrastructure. There also will continue to be a market for metallurgical coal as an input for steel production, both domestically and abroad, particularly in Europe.

Oil and natural gas, meanwhile, will certainly continue to play a significant role in the United States’ energy mix through at least the near term, subject to certain constraints, and potentially longer (particularly beyond the domestic U.S. market). The industry’s current and projected implementation of various solutions to lower emissions and boost efficiencies, along with the improving investor sentiment associated therewith, will likely sustain the role of oil and gas further still. For example, a recent study by the Columbia University Center on Global Energy Policy and the University of California,

Davis Institute of Transportation Studies, found that certain “aspects of the COVID experience” actually increased oil consumption, leading to a projected increase in global oil demand through 2030 “in three out of the report’s four scenarios, which is generally in line with forecasts by agencies such as the International Energy Agency and others used for that period.” Inevitably, however, the role of oil and gas in the global market will contract. Renewables are becoming cheaper, more proven and more prevalent, and increasing shares of developed markets move toward lower-emission technologies (e.g., electric vehicles, urban transportation systems, buildings, appliances). Thus, the sustained future of oil and gas, particularly as to natural gas-fired power plants, remains to be seen as nations grapple with the meaningful and committed push to decarbonize our planet while remaining mindful of the cost, environmental impact, speed of implementation and ability to scale up alternative renewable technologies to power a world needing more energy every day.

One silver lining to Biden’s plans for the oil and gas sector is an “**immediate up-front investment**” of \$16 billion to plug abandoned oil and gas wells and clean up old mines by way of his massive infrastructure plan. The primary focus of the investment is job creation, but plugging wells using federal dollars would, of course, help the bottom lines of upstream companies.

B. Regulation and Other Constraints on the Horizon

1. Interior Department

In one of the Biden-Harris administration’s most consequential moves upon taking office, the U.S. Department of the Interior (DOI) imposed a temporary moratorium on new oil and gas leases on federal lands and offshore, citing the need for a comprehensive review of the program to assess its climate change impacts. Following a barrage of lawsuits brought by states and industry, a Louisiana district court **issued** a preliminary injunction in June that prevents DOI from implementing the moratorium while litigation continues. In response, DOI issued a **statement** announcing the resumption of on- and offshore leasing but confirming that it is appealing the preliminary injunction to the 5th Circuit Court of Appeals. Through the statement, DOI asserted its perceived concerns with the federal leasing program, claiming contributions to “significant greenhouse gas emissions and growing climate and community impacts,” as well as other environmental and social harms. Finally, DOI reiterated its plans to conduct a “programmatically analysis” of the federal leasing program while it continues “to exercise the authority and discretion provided under the law to conduct leasing in a manner that takes into account the program’s many deficiencies.” The statement signals a potentially drastic reduction in the number of new lease sales and issuances under the Biden-Harris administration, as well as increased royalty rates and reformed lease terms that take into account the broader climate impacts of oil and gas production and an updated view on the DOI’s stewardship responsibilities.

With respect to coal production, Interior Secretary Deb Haaland issued an order in April signaling the agency’s possible intention to formally reinstate a moratorium on new coal leases on federal lands. DOI followed through on that order in August with a formal **notice of intent** to review the federal coal leasing program. DOI has not approved the sale of a new coal lease since the Biden-Harris administration took office. The notice points to more of the same in the near future, along with potentially increased royalty rates over a longer horizon. The notice of intent also signals a

heightened focus on climate, socioeconomic, cultural, trade and tribal considerations, all of which may influence the future of coal leasing under the Biden-Harris administration.

2. EPA

EPA also plays an integral role in implementing the Biden-Harris administration's climate plans. Among other regulatory proposals currently in progress, in September the Agency **plans** to propose new regulations setting standards for existing oil and gas operations that cover virtually all of the sector's segments. A recent "Methane Detection Technology Workshop" **signals** some of the technological advancements upon which those standards—which we expect to be more stringent than existing standards—will be based. These include satellite detection of emissions, the use of aerial and visual tools, sensors and monitors and leak simulation technology.

3. Taxation

Also looming is Biden's plan to replace subsidies for fossil fuel companies with incentives for production of clean energy, as a way to pay for his infrastructure plan. The "Made In America" tax plan did not specify which tax breaks for fossil fuel companies would be targeted. Intangible drilling costs, which allow producers to deduct most costs from drilling new wells, could be on the chopping block. According to the Joint Committee on Taxation, a nonpartisan congressional panel, eliminating the deduction could generate \$13 billion in additional tax revenue from the industry over 10 years.

4. Enforcement

Finally, the industry can expect heightened enforcement during the Biden-Harris administration's tenure. Early on, President Biden made environmental justice a cornerstone of his environmental agenda, **promising** to "strengthen[] environmental justice monitoring and enforcement." Given the link some scholars **have articulated** between oil and gas operations and environmental justice concerns, expect EPA to focus on these areas. The industry also should expect increased enforcement and regulatory involvement more broadly within the industry, as evidenced by a recent **report** from EPA's Office of Inspector General that recommended bolstered enforcement of synthetic-minor-source air permits and a recent **guidance document** promising enforcement of a number of Clean Air Act rules applicable to the industry, including most notably the Obama-era methane rule Congress recently reinstated through the Congressional Review Act.

5. Congressional Action

All of these developments come amidst the backdrop of increased legislative pressure. Congressional Democrats' pending infrastructure and reconciliation packages are likely to include provisions targeting traditional energy sources. For instance, while a carbon tax currently is not in the works, some Democrats have **proposed** a fee on methane emissions. At the same time, environmental groups have focused on reforms to the federal oil and gas leasing policy, **urging** Congress to impose and enforce conditions and cleanup requirements to apply to new fossil fuel extraction, including updating bonding standards; reform the leasing, bidding, rent and royalty systems; and terminate lease issuances on lands with little potential for oil and gas development.

II. Innovation Opportunities

It is no surprise that the path forward for traditional energy companies is through continuous innovation and strategic planning. Investor pressure and public perception has been and will continue to be an increasing driver, particularly as to public producers, to further innovate and implement business strategies that demonstrate a commitment to being part of the global decarbonization effort. Further, political leaders in the United States and worldwide are eyeing a number of policies to spur technological progress in order to increase output and efficiency while minimizing emissions. During the Summit and G7 meetings, the United States announced several initiatives intended to support these efforts, including plans to set performance targets and collaborate with research institutions and industry to manufacture net-zero carbon technologies. Perhaps recognizing the nature of the challenge at hand, the administration characterized its efforts as “moonshot-style ventures” intended to produce “game-changing breakthroughs.”

Real progress in the clean energy space will require time and money (and lots of it). The United States plans to “quadruple clean energy innovation funding” during President Biden’s first term in office, much of which will go toward carbon dioxide removal and emissions-reducing advancements in international shipping, agriculture, food systems, energy-intensive industrial sectors and the power system. The Biden-Harris administration also envisions that nuclear energy will play a larger role through the expanded use of small modular reactors.

Domestically, the U.S. Department of Energy (DOE) will play a vital role in achieving these goals by funding relatively new—and, in some cases, untested—technology. DOE’s primary focus areas for innovation include hydrogen, carbon capture, industrial fuels and energy storage. Granholm and others in the Biden-Harris administration see hydrogen as playing perhaps the largest role of the four and so hope to make renewable hydrogen energy more viable by lowering its price by 80 percent by 2030. While hydrogen costs already are dropping, expect to see federal policies that accelerate this shift and replace “blue” hydrogen sourced from natural gas with “green” hydrogen produced by renewable energy sources, a goal of DOE’s “**Hydrogen Shot**” initiative.

Another area in which DOE is expected to lead, with some bipartisan support, is growth in effective CCUS. This technology actually might make blue hydrogen more attractive, thus impacting the administration’s green hydrogen goals. Regardless, effective CCUS would pair nicely with other technologies to meet clean energy goals. As with hydrogen, the main obstacle for CCUS is cost, so DOE will likely increase funding for both atmospheric carbon capture projects and carbon capture at industrial sites. Similarly, expect to see more support for energy storage projects (even for **fossil-based energy sources**) as the administration has set a goal of cutting battery prices and **reducing** reliance on critical materials facing supply shortages.

Beyond technological advances, many fossil fuel companies will look for creative ways to partner with renewable energy sources as a means of not just lowering emissions, but also diversifying into what will be a profit-driver for years to come. In addition to supporting conventional solar and wind farms, the Biden-Harris administration **claims** it is ready to “rock and roll” on offshore wind, planning to deploy 30 gigawatts of offshore wind energy by 2030. Those not ready to take the plunge might look onshore for opportunities to co-locate solar generation facilities at existing plants, co-fire natural gas or explore opportunities to harvest geothermal power. Others will employ consolidation strategies to capitalize on synergies with forward-thinking firms in both

the traditional and renewable energy spaces and build more streamlined, integrated business models. And any company, no matter the size, [can purchase](#) high-quality offsets as a low-risk way to demonstrate climate commitments to stakeholders.

The coal-fired electric utility sector will need to embrace all available options, with a particular focus on CCUS and other new technologies that minimize emissions. Oil and gas companies cannot overlook innovation, but do have the benefit of more time to consider capitalizing on market trends as technology becomes cheaper over the next decade. The oil and gas sector also can pivot the deployment of its significant technical expertise towards decarbonization. Still, prudent operators throughout the energy industry will continue to look internally for operational improvements and improved technologies that will reduce environmental impacts and global emissions, such as through decreased water usage and methane leakage (including innovative methods to [detect](#) and prevent leaks before they occur), used oil recycling, the use of renewables to power drilling operations, carbon capture and removal technologies, digital optimization and advanced energy technology systems, among others. Those who take the lead in developing and employing innovative technologies will be best poised to thrive deeper into and beyond the energy transition and may have the opportunity to export that technology abroad, whether by incorporating technological advances into existing foreign operations or by licensing new technology to firms that are further behind in their sustainability journeys, to yet further reduce global emissions, particularly in developing countries.

III. Conclusion

With the United States back on the international climate stage, the race is on toward COP26. The Biden-Harris administration promises to arrive ready to announce more plans that support climate innovation. The country also will continue to pursue international collaborations in the coming months, including the [Global Power System Transformation Consortium](#), the [U.S.-India Climate and Clean Energy Agenda 2030 Partnership](#), the Renewable Energy for Latin America and the Caribbean Initiative and the [Net-Zero Producers Forum](#) with Canada, Norway, Qatar and Saudi Arabia, to name a few.

Akin Gump, through its cross-practice [climate change initiative](#) and [Speaking Sustainability blog](#), tracks and analyzes the latest developments from these developments and initiatives. To stay informed, engage with leaders as new funding opportunities and regulations take shape, and develop an effective climate and sustainability strategy, reach out to any member of our cross-practice team of climate and energy experts.

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