

# OFS technology: The driver of energy transition



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Energy Transition—the challenge for our global community to deliver cleaner, safer energy in a dynamic mix that will sustain a growing population and provide critical progress in the developing world. What could be a greater challenge and opportunity for new entrants to the workforce? If you want to make an impact on the betterment of society, it's here in energy.

That's what the next year and decade will be all about—how the oil and gas industry, specifically the energy technology companies of the OFS sector, will meet the challenges and opportunities of a carbon-neutral future while still producing affordable, reliable energy in a more efficient, environmentally-responsible manner than ever before. And we will need to attract a specialized workforce to get there.

**Further technology development.** The OFS culture of developing technology to solve problems will create opportunity, as we tackle water recycling programs, volatile organic compounds and flaring, as well as addressing methane and CO<sub>2</sub> emissions. And, most importantly, automation,

innovations around AI, additive manufacturing and digitalization of the entire supply chain will make the sector more accessible to a broader workforce. These changes in our culture and identity will bring more opportunities for millennials, women and other diverse groups.

A recent study from the University of Houston, in partnership with the Environmental Defense Fund, cited a majority of those polled as concerned about environmental stewardship and say that ESG (Environmental, Social & Governance) practices play an important role in their decision to accept an offer from an oil and gas company. Students in STEM roles also view corporate responsibility as important to their employment decisions.

In a lower-carbon future, oil and gas will remain an important part of the energy mix, and investing in technology and innovation as a solution will lead us toward the energy transition. Many companies are investing in carbon capture sequestration. OFS firms and operators are also collaborating on renewable technologies.

And our sector is now embracing a more proactive approach to highlighting the countless improvements in efficiency, safety and environmental impact that only technology can deliver.

**Working on emissions and renewables.** Early last year, Baker Hughes announced a net zero global carbon emissions commitment by 2050, with many other companies beginning to track and report total energy consumption, CO<sub>2</sub> emissions, and water consumption and recycling. Companies now share positive metrics around environmental goals, incorporating ESG practices that address sustainability goals. This may be highlighting safety track records and employee training hours, environmental impact, diversity within Boards and management teams, and community engagement. By aligning customer needs with their ESG objectives, the sector demonstrates to shareholders the importance placed on

environmental and social stewardship.

The offshore equipment sector is particularly adept at addressing the issues that offshore wind turbines face. Oceaneering is now using their ROV technology that monitors offshore oil and gas facilities to monitor offshore wind facilities and have recently purchased a renewable company providing lane clearance for offshore wind. Similarly, NOV's significant expertise in the offshore sector earned the company an equipment package and design order for one of the largest offshore wind turbine installation vessels by Japan's Shimizu Corporation. TechnipFMC's "Deep Purple" project is converting power from offshore wind to hydrogen that is stored on the seabed. This hydrogen could then be re-electrified by fuel cells that could provide clean power for offshore oil and gas platforms and future potential markets.

**Reducing carbon footprints.** Many major OFS companies are also working to lower their overall carbon footprint. In December, Schlumberger announced that it is setting a science-based target to reduce its greenhouse gas (GHG) emissions. The commitment has been submitted to the Science Based Targets initiative (SBTi) and, in line with the defined criteria, the company will define its reduction target by 2021. Companies are also exploring new partnerships to achieve these goals. Halliburton is collaborating with research organizations and educational institutions to further the development of sustainable solutions for the energy industry.

The OFS sector has more than 100 years of experience in bringing energy to the world. We will continue to innovate and diversify in the coming years, as we find smarter ways to take energy forward and create the industry of the future. [WORLD OIL](#)

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