

Innovations Driving a Sustainable Energy Future

The oil & gas industry is best equipped to drive a responsible energy transition forward. Some of the brightest minds in science work for WSPA member companies, who are developing low-carbon energy solutions and technologies that will sustainably power society for generations to come. Some of those innovations include:



Carbon Capture, Utilization & Storage

Carbon capture can achieve up to 14% of the global GHG emissions reductions needed by 2050 (Center for Climate & Energy Solutions)

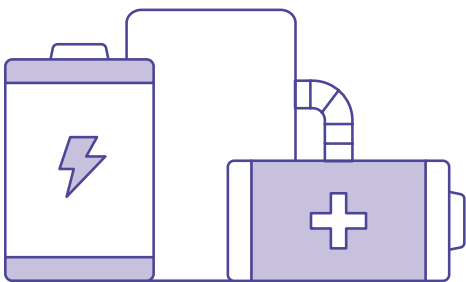
The process of safely capturing carbon dioxide before it enters the atmosphere, then securely transporting it and storing it, essentially removing it from ever being released.



Biofuels

Implementing biofuels in the transportation industry can result in up to 44% lower GHG emissions (University of Michigan)

Lower carbon transportation fuels, such as ethanol, made from biomass renewable sources (i.e. various plant-based waste, algae or used vegetable oils) into fuel energy.



Energy Storage

Energy storage systems have increased 50% since 2019 and will be critical to facilitate renewable electricity and support the grid (EIA)

The capture of energy produced at one time for use at a later time to reduce imbalances between energy demand and energy production and help address intermittency with renewable generation.



Renewable Energy

Renewables currently account for 21% of U.S. electricity generation, with strong growth forecasts due to strong investment (EIA)

Energy that is collected from renewable resources that are naturally replenished, including sources such as sunlight (solar), water (hydropower) wind and geothermal