

## NGSA Members Are Innovating for a Clean Energy Future for All

Fall 2021

The natural gas industry believes in a clean energy future for all and that is why we are investing billions of dollars in new technologies and practices to continue the momentum of innovation. We are proud that NGSA's member companies have been instrumental in developing new technologies to better detect and prevent methane emissions and to build on our industry's existing record of substantially reducing carbon emissions in the atmosphere. We are even developing new energy solutions using hydrogen -- all with the goal of ensuring a low-emissions energy future for all.

For example, our members are partnering with new allies, such as the Environmental Defense Fund, to seek better ways to reduce methane emissions and intensity, in addition to reducing flaring as part of existing member plans. They have invested in and deployed [drones](#), cutting edge [camera imaging techniques](#), [satellites and planes](#) to help detect methane emissions across many of their facilities. Their state of the art techniques and technologies, such as [continuous IoT monitoring](#), have yielded impactful results, like helping Chevron to reach its goal of 20-25% reduction in methane by 2023. As our members continue investing in new ways to detect and stop greenhouse gas (GHG) emissions, the impacts of these technologies and techniques will grow, meaning fewer emissions from a reliable source of energy.

In their pursuit of lower GHG emissions, several of our member companies have developed and launched carbon capture use and sequestration (CCUS) techniques and technologies, ranging from sustainable CCUS hubs for the natural gas industry and [beyond \(be more project specific\)](#), to [fuel treatments that reduce emissions](#) from [wellhead to end use](#). In fact, through NGSA members' commitments to the Oil and Gas Climate Initiative, its [Climate Investments group](#) has been able to invest billions across the globe to identify and produce the best CCUS solution for the job, helping to tailor the right approach to reducing emissions.

CCUS technologies are vital to ensuring a lower carbon energy future, which is why they've been backed by supporters such as Presidents [Obama](#), [Trump](#), and [Biden](#); international energy forecasters such as the [International Energy Agency](#); and environmental groups such as the [Energy Futures Initiative](#). CCUS will play a vital role in helping decarbonize sectors such as manufacturing, chemical production, and farming, all while leading to net zero in the power sector. As nations look to make good on their Paris Accord commitments, CCUS will be vital to reducing emissions globally. We believe that the work and investment being done now by NGSA members will help make that path a reality.

While new imaging techniques and CCUS will help reduce emissions across the natural gas industry and the economy at large, new energy sources such as hydrogen will play an important part in the clean lower carbon energy future. Hydrogen, derived from natural gas, can provide a zero emissions source of energy for hard to decarbonize sectors.

NGSA's members are at different phases of hydrogen development, yet all see the fuel as an important part of the energy mix moving forward. Some members are already utilizing the fuel in pilot power plants to help [reduce CO2 emissions](#) by roughly 4 million tons a year. Other companies are working to establish [hydrogen hubs](#) to serve industry and heavy duty transport as they look to reduce their emissions and to develop best practices and more advanced technologies.

The challenges to creating a clean lower carbon energy future are many, but we are proud that our members are leading the fight to help ensure the world can have both low emissions and reliable power.