ESA ENERGY SEARCH ASSOCIATES



THINGS to Know About Me...

After the Gulf War I, I flew into Kuwait on a C-130 two weeks after liberation and was a key advisor to the Government of Kuwait to rebuild the country.

2 I own a 1946 GMC Truck called Bonnie.

? I was honored to be named Alumni of the Year at my college alma mater.

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How large is the plugging market?

According to the Department of Interior, there are 3.3 million A&O wells. Department of Interior Secretary Haaland is backing a Build Back Better proposal that would create 250,000 new green jobs plugging the wells. Old fields/production in Pennsylvania, Oklahoma, East Texas and Midland have extensive A&O wells. Pennsylvania regulators stated that they are finding more A&O wells than are being plugged.

JOINT REPORT FROM RESOURCES FOR THE FUTURE & THE CENTER ON GLOBAL ENERGY POLICY AT COLUMBIA UNIVERSITY

GREEN STIMULUS for OIL AND GAS WORKERS

Considering a major federal effort to plug orphaned and abandoned wells

WHAT IS AN ABANDONED WELL?

Unplugged abandoned oil and gas wells sit unused for lengthy periods of time, and "orphaned" wells are those with unknown or insolvent owners.

Abandoned wells impose heavy climate costs, risks to local environments, and public safety concerns. They can leak oil and brine and emit air pollutants that damage local air quality and contribute to climate change.



The Environmental Protection Agency estimates that there are 2.1 million

unplugged abandoned oil and gas wells across the United States, and there are hundreds of thousands of orphaned wells.

PLUGGING WELLS: **JOB CREATION** -

Abandoned & Orphaned Wells - "A SLEEPING GIANT" Investors Seek Opportunities | Regulators Seek Compliance

How is ESG impacted by A&O?

Today's investors in the energy space are very sophisticated. There is no longer a "drill baby drill" attitude with new energy focused on the ESG business case. Companies that have poor plugging initiatives or programs might have issues with their accounting firm regarding attestation of environmental risks. While carbon capture, transportation and sequestration are more long-term challenges, clean water and A&O remediation need immediate focus. We will start seeing Big Oil incorporate KPIs in their plugging programs so not to be accused of green washing and demonstrate their commitment to clean energy.

What environmental and monetary risks are associated with A&O wells?

There are many risks associated with A&O wells including environmental reputation, methane leakage, ground water contamination, remediation costs, federal/state fines and penalties, shareholder/regulatory litigation, etc. Companies will be moving the traditional role of pumpers to more digitalized operational tasks (e.g. sensors, smart monitoring, etc.). The investment for well-head technology is dropping and the cost benefits are becoming obvious. The U.S. is about two years behind Europe energy environmental standards.



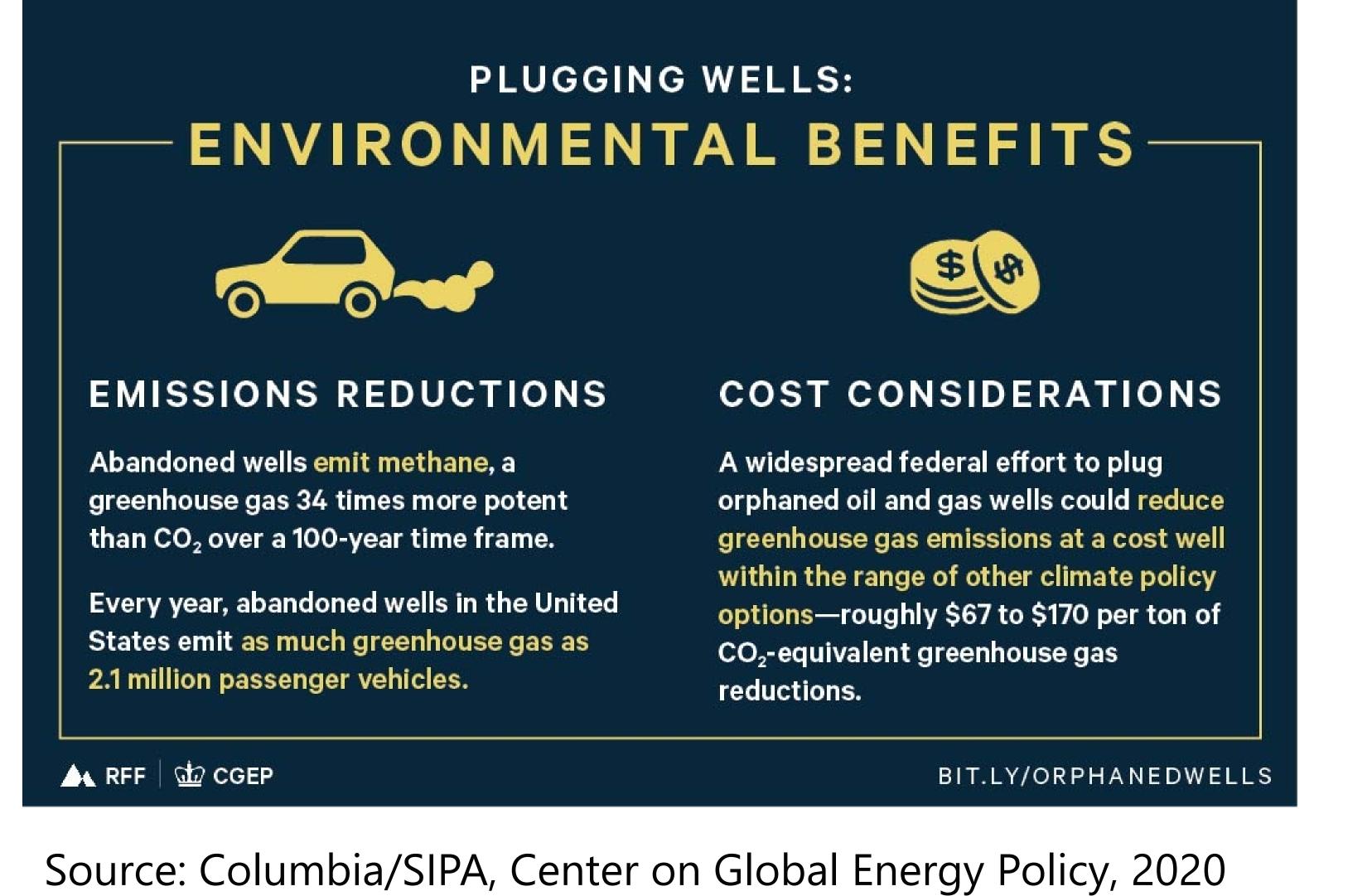
76,000

More than 76,000 oil and gas industry jobs were lost from February to June 2020. These jobs losses have the biggest impacts in rural areas.

120,000

A significant federal program to plug abandoned wells could employ tens of thousands of workers as many as 120,000 jobs could be created to plug 500,000 wells.





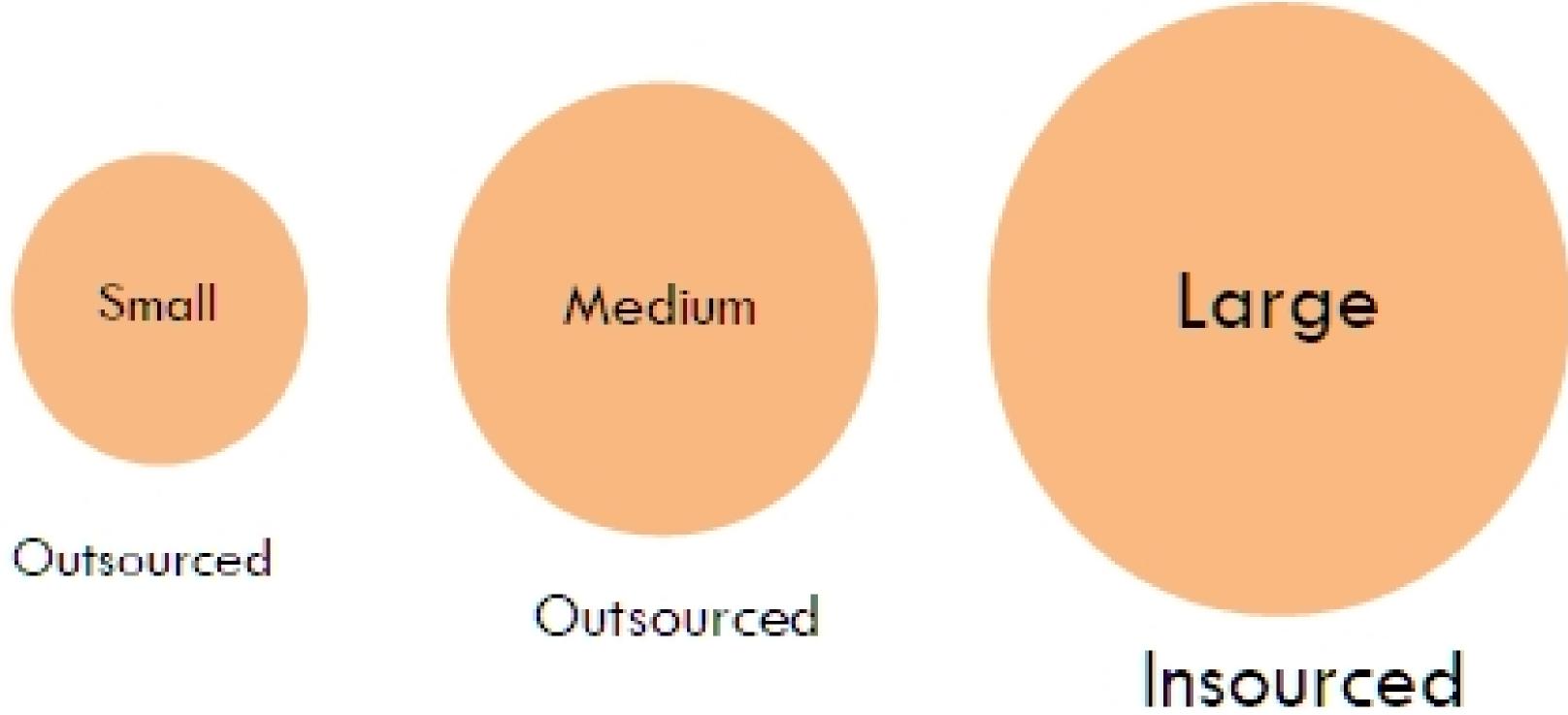
How does plugging effect the M&A market?

Although today's A&O market is significant, over the next 5-10 years it will become exponential. In addition to the estimated 3.3 million A&O wells, there are over 900,000 wells actively producing today. Many of these wells will need plugging in the next five years. The Barnett Shale is approaching 23 years of production since its inception in 1999. Accordingly, since 2018 the PE firms have become players in the energy space and view the A&D market with significant upside.

How is the plugging industry organized?

The industry can be divided in two groups - small and large plugging companies. The small/medium size upstream O&G companies outsource plugging to small companies with 1-2 crews and rigs. It's a relationship based contracting style. This sector is fragmented with hundreds of companies, free cash flow is a challenge, no formal business development strategy, the owner practices hands-on management, and financial controls are minimal. The Majors have in-house plugging organizations or outsourced to the large service companies like Schlumberger, Baker Hughes and Halliburton. These companies are well managed, can deliver basin level support and have a global footprint. Over the next five years, there will be an M&A tsunami in acquiring small independent plugging companies to meet the exponential growth in the A&O plugging market.

O&G Company Size Plugging Allocation



With the environmental impetus and focus on plugging A&O wells, we will see ESG Funds start to be players. There's a "sweet spot" between the Majors and the Medium Independents in the A&O plugging market. The "over thinkers" will be laggards while the "nimble" will capture the market.

To connect with W. Tombie Hall CLICK HERE

Connect with us:

Have an Oil & Gas position to fill or want to learn about our openings?

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