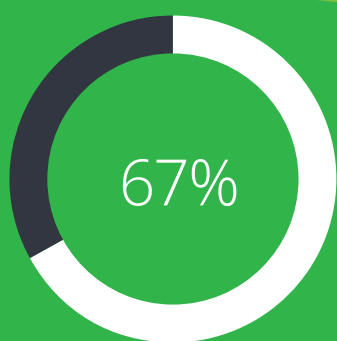


The US shale boom Optimizing well design

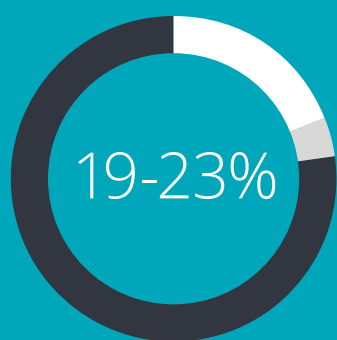
Phenomenal growth over the last 15 years, and unexpected resilience during the recent O&G downturn, sum up America's biggest energy revolution: the shale boom.

The industry's engineering and completion intensity is at a record high, with shale operators completion intensity increasing by 65 percent since 2010. But rising shale output isn't translating into higher cash flows for operators.

The under-engineering of wells leaves resources unmonetized, but costs associated with over-engineering wells can more than offset productivity gains.



In the Permian and Eagle Ford, **67%** of wells are either over- or under-engineered



But by focusing on optimizing well design, there's an opportunity to improve capital efficiency by **19-23%**



If these well designs are optimized, the industry could reduce capital requirements by **\$24 billion**

Higher oil prices can make shale operators blind to this opportunity or hide these inefficiencies, while lower oil prices can expose the cracks.

Who can help US shale operators seize this opportunity and safeguard the long-term promise of shales?



Oilfield service providers can minimize service cost inflation and maximize well productivity without further hurting their business, innovation, and sustainability



Midstream companies have infrastructure that provides realizations of products at market prices, matches with shale production profiles and product-mix trends, and rationalizes commercial arrangements

To navigate and realize their full potential, companies should:



Focus on digital and analytics capabilities



Balance experimentation and standardization



Explore operational and commercial arrangements

Explore more in our four-part article series, **Moving the US shale revolution forward.**