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please see my article Goodwin, R.W.; "Hydraulic Fracturing Improvements Show Bans Aren't Needed"; Posted on November 1, 2014 by Natural Gas Now Guest Blogger shalenow.com http://naturalgasnow.org/hydraulic-fracturing-improvements-show-bans-arent-needed/

Fracking Bans are not justified

There are now 422 fracking bans in the USA and more are being proposed everyday [(1)]. The state of the technology of Hydraulic fracturing or fracking shows that it can be properly applied to reduce environmental risks and damages. Both the ex-Mayor of New York City and the President of the Environmental Defense Fund agree that fracking can be conducted properly by approaching the technology using "data acquisition and management problem (solving)" techniques [(2)]. Their approach should be integrated with the application of sound engineering principles. My white paper "**Environmental Perspective Hydraulic Fracturing" [(3)] accepted by USEPA (4/5/14) for their** Scientific Advisory Board [SAB] Hydraulic Fracturing Research Advisory Panel [I have been involved with this SAB for over one year] demonstrates that cost-effective engineering applications have improved hydraulic fracturing performance.

Reduce Methane Emissions - By plugging leaks in compressors and pipes, producers can cut emissions of methane, a potent heat-trapping gas, according to a report [March 2014] by the Environmental Defense Fund and ICF International Inc., a consultancy specializing in energy and the environment. The $2.2 billion cost would be offset over time by the sale of captured gas, the study estimates. At approximately $10MM per well, the industry can afford to spread $2.2B over the costs of new and existing wells. The industry is expected to invest trillions of $US over the next several years in unconventional oil and gas development.

Cement Well/Build Better Wells and Get Better Data - The USEPA has established a Scientific Advisory Board to Review Methodology and Technology mitigating effect of fracking on water quality. Also ASTM, API etc. have established standard setting committees for drilling [e.g. well cementing], fracking, production water options. During the next two years the efforts of experienced participants should change the way that fracking operations are implemented, managed and regulated. The SAB's work will continue until 2015 – both existing and grass-roots drilling projects will be monitored.

Recycling Wastewater - Recycling frac wastewaters would not only save operators money and secure 'fast track' permits, but reuse would avoid deep well injection – removing a high potential contributing factor to localized earthquakes. Such articles eliminate much of the uncertainties about hydraulic fracturing – creating a more reasonable tone to improve the process without creating fear of the unknown.

(1) Jennings, D: "Fracking Bans Spread Even As Science Reduces Perceived Danger"; Alpha Energy, June 26, 2014
(2) Bloomberg, M.R. and Krupp, F.' "The Right Way to Develop Shale Gas"; The Wall Street Journal; 4/30/14
(3) http://yosemite.epa.gov/sab/sabproduct.nsf/D3AE85DC5A40EEC885257CB3004E03F8/$File/Public+comments+submitted+by+Goodwin,+Richard-4-4-14.pdf

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