

Lessons On Reaping the Benefits of Future Big Oil

Book Review: *Giant Shifts: Energy Trends Reshaping America's Future*. By Jimmy Vallee. Sutton Hart Press (2017)

Jimmy Vallee's new book, *Giant Shifts: Energy Trends Reshaping America's Future*, assembles a detailed and thought-provoking look into the challenges and opportunities facing today's U.S. oil and gas industry. From the surge of technological innovation and generational dynamics to innovative means of capital investment and the rebuilding of American infrastructure, Vallee lays out the various potential futures available to our nation based on the investments and regulatory decisions we make today.

Vallee opens *Giant Shifts* with an impressive autobiographical account of five generations of oil men - beginning with his great, great grandfather, H.E. Vallee, founder of a Beaumont, Texas oil field trucking concern. Born into the industry, experiencing the tragic loss of his father in a rig accident in the late 1970's and living through subsequent booms and busts of the oil and gas industry, Vallee obviously has the oil business in his blood.

He goes on to take the Texas Bar Exam, gets married, and 15 years later finds himself smack dab in the middle of the U.S. Shale Revolution. There may be no better guy to surmise on where American oil and gas is headed and the opportunities available to those who choose to participate.

Vallee writes, "A perfect storm of innovation, entrepreneurship, pioneering mindset and geologic fortune has brought us to this place. And with great fortune, comes great change. The U.S. oil and gas industry is in the midst of numerous Giant Shifts. As with any new era in history, how we utilize these opportunities - the decisions each of us make today - will ultimately determine our future as a nation."

One of these Giant Shifts is what oil and gas folk call the "Great Crew Change," - the rapidly-approaching transfer of knowledge between the Baby Boomers and the Millennials. The reason the shift is so daunting, Vallee explains, is because an entire generation, Generation X, failed to enter the workforce after the mid-80s oil bust. With a significant shortage of talent and the Boomers racing toward retirement, GenXers must help facilitate the transfer of knowledge from the paper and pen Boomers to the tech-driven Millennials and quickly foster a culture that attracts new talent - "...a green-friendly, tech-savvy mentality and a very different outlook on safety, ethics and authority."

Speaking of tech-savvy Millennials, Vallee paints an interesting, "space-age" picture of the digital future of oil and gas that is making production easier, faster and more environmentally safe than ever. Injected nanobots send up 3-D renderings of reservoirs with data on pressure, temperature and chemical makeup. Self-piloting drones survey the land above. Big data analytics and the Internet of Things can mean no dry holes - "a hit every time." To Vallee, the relatively tech-stagnant oil and gas industry must not only embrace these changes, but run with them.

Vallee emphasizes how very capital intensive the oil and gas business is. For example, a simple vertical well can cost anywhere from \$5 million to \$9 million, and a horizontal well can range anywhere from \$10-20 million. Offshore deep water wells and facilities can run up into the hundreds of millions of dollars - just to drill one well.

He presents a compelling argument for exploring new, inventive means of putting capital to work and investing now, while stocks are down. "The recent oil price plunge means banks and junk bonds are

cutting oil companies out for capital,” Valle writes. “Oil and gas companies are financially unstable, putting a hold on drill sites and decreasing man-power... Investing now will result in double and triple wins when commodity prices rebound, and private equity firms are in prime position to seek out bargains.”

In an interesting approach to generating much-needed capital for the industry, Vallee presents a concept that benefits all involved, the concept of “mailbox money” for Baby Boomers - yield-based securities serving as a source of income for retiring folks’ daily life and expenses. Vallee examines royalty trusts, MLPs, ETFs and direct investment in oil and gas to act as yield-based security vehicles with high-yields, impressive tax incentives and a steady stream of cash flow for investors, “something corporate and government bonds cannot do in this low-interest rate environment.”

And the concept works, simultaneously creating a self-perpetuating cycle of regular income for retiring boomers and much-needed capital for both the oil and gas industry and the rebuilding of American infrastructure.

Vallee parallels FDR’s New Deal of 1933 with today’s infrastructure needs, employments needs and vast opportunity in the book’s aptly titled section, “New Deal v2.0.” Most importantly, the author approaches this topic with a sense of responsibility – suggesting we use our abundant resources to pursue continued innovation in cleaner-burning natural gas for electricity generation and transportation fuel, along with a transition from traditional building materials to advanced oil and gas-based materials of superior quality - “key to a sustainable future.”

After a noteworthy dialogue on cleaner-burning energy and transportation sectors, Vallee asserts that we must transition from combustion to materials, substituting aluminum, cement, lumber and steel with less carbon-intensive, lighter weight and structurally superior petro-based materials to form the basis of future American infrastructure.

For instance, polymer-sand composites boast higher stability and faster curing times than cement. Plastic and composite wood have superior durability, weathering capacity and ease of use in architectural projects. Carbon fiber-reinforced plastics have already become the leading material in the construction of high-performance vehicles. Boeing currently uses advanced composites in 50% of its 777 and 787 airframe structural components for greater strength and decreased weight, the same reason BMW uses no structural steel in its i3 electric vehicle.

Vallee writes, “We have the technology, resources, environmental incentive and capital for this shift from combustion to advanced materials production. There is no better time to rebuild American infrastructure and no better way to implement the oil and gas industry in the process.”

You may ask what is keeping other nations from having their very own shale revolutions. After all, shale is shale. Vast amounts of oil and gas exist in every shale play in the world. Vallee’s detailed research into global unconventional resources and the use (or lack of use) is quite interesting, covering which nations are on board with shale, which nations refuse to participate, and why. From water shortages in Saudi Arabia to harsh environmental activists in Australia to die-hard proponents like China (hoping to clear their CO2 emissions) and the U.K.’s new financial incentives for residents.

Giant Shifts doesn’t fail to highlight the exponential increase in U.S. oil and gas export since Congress lifted the 40-year crude oil export ban in late 2015 – along with the vast benefits of becoming an export

nation. The ability to export these abundant resources boosts potential for economic growth, employment and global competitiveness and creates an opportunity to bring down our long-lived trade deficit.

America is now able to aid its allies, exert enhanced non-military influence on foreign policy, enhance both national and global security and bring stability to the energy market. With our ample supply of natural resources and the oil export ban lifted, the only thing Vallee feels could prevent us from moving forward toward energy independence as a nation is regulatory policy.

The chapter titled “Houston Rising” is especially absorbing, in which Vallee states his case for Houston, Texas serving as a mecca of training, investment and philanthropy to build a foundation for the future of the industry – doing for oil and gas what Silicon Valley has done for information technology. And his case is persuasive.

Vallee writes, “The centralized location, education, resources and talent that Houston offers presents an opportunity for the U.S. oil and gas industry to generate visionaries that lead the world in cleaning up our environment and rebuilding American infrastructure. A supportive network of businesses focused on the petroleum industry, an emphasis on STEM education, and the investment of money, intellect and time into an oil and gas industry-focused culture will attract and educate new talent, facilitate the advancement of global energy innovation and generate unbridled enthusiasm around hydrocarbons and their use in fueling a safe and sustainable future.”

If anyone knows the inside scoop on the business and investment in the U.S oil and gas industry, it's Jimmy Vallee. With roots deep in the Texas oil fields going back five generations, the high-visibility Texas Tech University School of Law grad is a Texas-based global mergers and acquisitions attorney and partner with Top 100 law giant Paul Hastings LLP. He served as national Mensa keynote last year and his expert legal commentary is spotted regularly across media outlets like USA Today and U.S. News & World Report.

Vallee's goal is this: “...to provide insight, strategies and ideas for business leaders, investors, financial advisors, teachers, students and others that are actively participating, or otherwise interested, in the global oil and gas business and its underpinnings. Americans are innovators, constantly taking our resources and reorganizing them into new patterns of energy never known before. If America makes the right choices now, we ensure our survival and dominance for generations.”

Giant Shifts: Energy Trends Reshaping America's Future could well be the single most important read for 2017 for policymakers, investors, business execs and oil and gas industry thought leaders. Vallee's contagious optimism, straightforward advice and entertaining narrative make for both an engaging and very informative read. For those looking into riding the very profitable wave of the Shale Revolution and reaping the benefits for generations to come, *Giant Shifts* is a valuable resource.