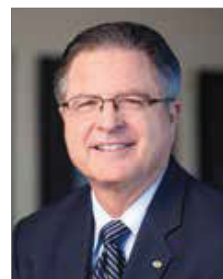


The economic benefits of an energy dividend

By John Watson
Chairman and CEO, Chevron Corporation



For more than 150 years, society has developed and grown in step with the availability of affordable oil and natural gas. Every modern convenience that we know – light, heat, digital communication, transportation, mechanised agriculture – each is enabled by this safe and abundant source of energy. With more than 2 billion people forecast to join the ranks of our global population over the next 35 years, the demand for oil and natural gas will only continue to rise. In fact, the International Energy Agency predicts total energy demand to grow more than 30 per cent over the next 25 years. At the forefront of this predicted energy consumption is oil and natural gas – a trend driven largely by more people around the globe aspiring and ascending to a more prosperous existence.

However the narrative of 21st century prosperity, fueled by affordable and reliable energy, is still out of reach for billions of people. In developing nations worldwide, citizens lack access to safe and abundant energy supplies. Despite the breadth of today's energy market, more than a billion people still live without electricity. Even more people are forced to burn elementary sources of biomass, including wood, crop residue and animal waste, in order to heat their homes and cook their meals. Sadly, this process takes a deadly toll on millions. The World Health Organization estimates more than 4 million people die prematurely each year from illness attributed to household air pollution caused by cooking with solid fuels.

Nations rich with natural resources have an opportunity to stem the tide of energy poverty and introduce a healthier and more prosperous existence to people in need. By developing domestic resources, nations can lead by example as they help to advance economies and meet projected energy demand. Importantly, responsible energy development also creates an energy dividend that aids local businesses, consumers and governments. The US, for example, has greatly benefited over the past decade from a strong energy dividend spurred by domestic development.

Dramatic breakthroughs in energy production – enabled primarily by the combination of hydraulic fracturing and horizontal drilling – have chartered a new course for America's long-term energy outlook and ushered in a profound shift for our nation. Tapping into resources once considered unrecoverable, such as tight sand and shale rock, domestic natural gas production has grown nearly 50 per cent over the past decade. The nation has witnessed

even greater growth in the production of domestic crude oil over that same time frame, with output up more than 80 per cent to an estimated nine million barrels per day. Today, the US is once again viewed as a global leader in energy production.

With a steady and affordable supply of energy on-hand, US manufacturing has increased while American households have benefitted from lower energy prices. The US Energy Information Administration found that household energy costs declined 14 per cent between 2008 and 2014. During this period, household expenditures also decreased by 17 per cent for gasoline, 25 per cent for natural gas and 28 per cent for fuel oil. Meanwhile, America's strong manufacturing growth – buoyed by the availability of shale gas – is projected to continue through at least 2025, which in turn helps to support US competitiveness and drive GDP growth.

Despite the cutbacks and tough decisions associated with a low-price energy environment, present and future demand remains strong for our products. As such, our industry must continue to balance short-term cost management with expected growth in energy demand over a longer-term horizon. Seizing this opportunity requires an honest and ongoing conversation about the role of energy in society, and a strong, common sense policy framework that encourages innovation, access and open global markets, while balancing environmental and climate goals.

The consistent theme of innovation

Innovation is a consistent theme in the progression of the US and global energy story. From the intrepid wildcatters of the late 1800s to the vast complexities of modern day exploration, energy production continues to advance thanks in large part to innovative technology. At Chevron we consider innovation to be a competitive differentiator. Our highly skilled employees develop and deploy some of the world's most sophisticated technologies, enabling safe, efficient oil and natural gas production across tough geographies. Our technological prowess is further enhanced through partnership and collaboration. We work with universities, government labs and other companies to pioneer new solutions that improve outcomes and address environmental concerns. As the American energy landscape continues to evolve, innovation will be the catalyst pushing it forward.

Sound policies fostering research and technology provide a helpful blueprint for more effective energy production – and eventually, an even stronger energy dividend. Through



Chevron's Jack/St Malo floating production unit in the Gulf of Mexico, fed by the two oilfields of these names

innovative thinking and advanced twenty-first century technologies, our industry can access and produce natural resources in a safe, environmentally secure manner. With abundant oil and natural gas in and around the US, safely increasing industry access will benefit our nation and many others.

Current estimates suggest that US federal lands hold enough recoverable natural gas to heat more than 60 million households for the next three centuries, and enough oil to power nearly 94 million cars over the next 50 years. Increased development of our natural resources will generate more jobs, more revenue and even more opportunity for millions of people. In 2015 alone, Chevron spent more than US\$15 billion with American suppliers, including US\$2 billion with small businesses and nearly US\$800 million with women- and minority-owned businesses. Globally our spend totaled US\$54 billion on goods and services, helping to stoke healthy economies worldwide. A regulatory framework encouraging access,

along with investment and development in oil and natural gas, will strengthen this outlook even further.

Finally, the energy industry's long-term interests are best served by policies that allow for oil and natural gas to be domestically produced, consumed, and imported or exported in response to free trade principles and market conditions. Open markets and the free flow of energy help to foster economic growth and global stability.

Our industry has rewritten the American energy future by moving from scarcity to abundance. Pivoting toward that opportunity has helped to create an economic dividend that bolsters consumer pocketbooks, lowers household energy costs, increases manufacturing output and promotes improved living standards worldwide. While not all resource-rich nations have the same geology as North America, we all share the same opportunity – harnessing domestic development to make life better for people at home and around the globe. And based on predicted demand trends, it is an energy opportunity that will only