

ExxonMobil's Energy Outlook Projects Population, Economic Growth to Drive Energy Demand

IRVING, Texas--(BUSINESS WIRE)-- Global population growth of nearly 2 billion, a doubling of worldwide economic output and rapid expansion of the middle class in emerging economies are all expected to contribute to energy demand growth of about 25 percent from 2015 to 2040, according to ExxonMobil's 2017 Outlook for Energy: A View to 2040.

Efficiency gains across economies worldwide will play a significant role in limiting the growth in energy needs. Energy demand in member nations of the Organisation for Economic Cooperation and Development (OECD) is likely to be flat to 2040, while demand in non-OECD nations is expected to increase 40 percent as prosperity expands and access to modern energy increases.

Growth in global energy demand will be led by greater electrification of the global economy. Fifty-five percent of the energy demand growth over the next quarter century will be tied to power generation needed to support the increasingly digital and plugged-in lives of society, according to the *Outlook for Energy*, the company's annual long-range supply-and-demand energy forecast.

Average electricity use per household will rise about 30 percent between 2015 and 2040. The share of the world's electricity generated by coal is expected to fall to about 30 percent from approximately 40 percent in 2015 as the use of lower-emission energy sources including natural gas, nuclear and renewables increases.

"As economies expand around the world, energy demand will increase as more people seek higher standards of living," said William Colton, vice president of corporate strategic planning of Exxon Mobil Corporation (NYSE:XOM). "Humanity's dual challenge is to meet growing energy demand while managing the risk of climate change. Our *Outlook for Energy* can help people understand factors influencing future energy supply and demand and inform industries and governments as they consider future energy policy."

With the global middle class more than doubling to about 5 billion, the number of cars, sport-utility vehicles and pickups are expected to increase about 80 percent to 1.8 billion vehicles by 2040. During the same period, average new car fuel economy will improve from about 30 miles per gallon to nearly 50 miles per gallon, reflecting significant strides in efficiency of conventional vehicles and a shift in the fleet mix favoring hybrid vehicles, the report shows.

Global energy-related carbon dioxide emissions are expected to peak during the 2030s and then gradually decline. This is supported by an increasing shift to less carbon-intensive energy for power generation and higher energy efficiency across all sectors.

The Outlook for Energy is ExxonMobil's long-range forecast developed by its economists, engineers and scientists through data-driven analysis. It examines energy supply and demand trends for approximately 100 countries, 15 demand sectors and 20 different energy types. ExxonMobil uses the forecast as a foundation for its business strategies and to help guide multi-billion dollar investment decisions.

Key findings of the report include:

- From 2015 to 2040, global demand for energy is expected to increase by about 25 percent – roughly equivalent to the total energy used today in North America and Latin America.
- In 2040, oil and natural gas are expected to make up nearly 60 percent of global supplies, while nuclear and renewables will be approaching 25 percent.
- Natural gas demand will expand significantly, accounting for about 40 percent of the projected growth in global energy demand.
- Nuclear and renewable energy sources including bio-energy, hydro, geothermal, wind, and solar – are also likely to account for 40 percent of the growth in global energy demand to 2040.
- Oil will provide about one third of the world's energy in 2040, remaining the No. 1 source of fuel, with growth driven by commercial transportation and chemicals demand. Average global fuel economy for new light-duty vehicles is expected to improve by about two-thirds.
- Carbon intensity of the global economy is likely to be reduced by 45 percent through 2040, reflecting significant gains in the energy efficiency of economies worldwide and a gradual transition to lower carbon-intensive energy types.
- Global energy-related carbon dioxide emissions are likely to peak during the 2030s and begin to decline, even as global economic output doubles from 2015 to 2040.
- North America, which for decades had been an oil importer, is likely to become a significant net exporter by 2025.
- India is likely to surpass China as the world's most populous nation by 2025. The two
 countries are expected to account for about 45 percent of the growth in global energy
 demand.

For more information about *The Outlook for Energy*, visit www.exxonmobil.com/energyoutlook.

Cautionary Statement: Statements in *The Outlook for Energy* and this release relating to future events or conditions are forward-looking statements. Actual future global or local conditions (including economic conditions and growth, population growth, energy demand growth and mix, energy supply sources, efficiency gains, the impact of technology, and carbon emissions) could differ materially due to changes in supply and demand and market conditions affecting oil, gas, and other energy prices; changes in law or government regulation and other political events; changes in technology; the occurrence and duration of economic recessions; the actions of competitors; the development of new supply sources; demographic changes; and changes in other assumptions or factors discussed in *The*

Outlook for Energy and under the heading "Factors Affecting Future Results" on the Investors page of our website at www.exxonmobil.com. See also Item 1A of ExxonMobil's latest Form 10-K.

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