HOW THE ENERGY OUTLOOK IS DEVELOPED

MONITORING POLICY AND TECHNOLOGY TRENDS

The Company monitors changes in technology, such as solar panels getting cheaper and batteries improving, as well as policy developments like the EU's tailpipe emissions regulations and China's coming 14th five-year plan.

HISTORICAL FOUNDATION AND FUNDAMENTALS

ExxonMobil uses the International Energy Agency's World Energy Statistics and Balances data service and other credible third-party sources as the historical basis for the Outlook. For liquids supply, S&P Global Platts data is used. For natural gas, historical production and pipeline flows are based on Wood Mackenzie, IHS, JODI Gas, S&P Global Platts (Eclipse) and others; historical LNG production and trade flows are based on IHS Markit (Waterborne) data. In the 2021 Energy Outlook, data for 2019 and earlier is considered historical; the Outlook's modeled projections cover 2020 to 2050.

The Company compiles demographic information and models economic trends for about 100 regions around the world. Primary sources are the United Nations, World Bank, International Monetary Fund and IHS. Population estimates are compiled from the U.N. and the World Bank. Economic trends (e.g., GDP) are modeled based on respected third-party views and ExxonMobil's own analysis.

Use of sensitivity analysis

ExxonMobil uses sensitivity analyses to provide greater perspective on how variations to its Outlook assumptions could affect projected energy supply and demand. The analyses for these sensitivities involve assessing technology advancements and the potential impact on energy supply and demand, resulting in a range of potential low- to high-demand outcomes for certain energy sources. The projections in the sensitivity analyses do not represent the Company's viewpoint or the likelihood of these alternatives, but can provide context to its analysis.

MODELING

The Company projects demand for services across 15 sectors covering needs for transportation; residential energy; production of steel, cement and chemicals; plus many others. Then it matches that demand across multiple energy sources, taking into account current use and potential evolution. It also projects liquid and natural gas supply and trade flows.