Exxon says oil and gas will still dominate energy in 2040

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The way oil giant Exxon Mobil sees it, the global energy landscape won't be radically different in 2040 than it is today.

Oil and gas will remain king, accounting for an even slightly larger share of the energy supply. Coal will fall behind natural gas to become the third-largest source of energy.

Exxon forecasts that emerging renewables such as solar and wind power will triple but remain small—just 4 percent of the world's energy. And carbon emissions will continue rising until around 2030, when cuts in industrialized nations gain traction lead an overall reduction.

Those are some of the highlights in the long-range outlook that Exxon Mobil Corp. released Monday. It is not likely to win an enthusiastic response from environmentalists, including some of the company's dissident shareholders, who point to record global temperatures in 2015 and want a quicker pivot away from oil, gas and coal and faster progress to bring down carbon emissions

Exxon officials say their report is a dispassionate forecast, not a political document.

"Exxon Mobil uses the outlook to develop business strategies that underpin our billion-dollar investment decisions," William Colton, the oil giant's chief strategist, said in an interview. "We have every incentive to get it right."

A great deal has happened since Exxon's last long-term outlook in December 2014. Oil prices have plunged lower for longer than anyone expected. International sanctions that kept Iran largely out of the world oil market were lifted. And international negotiators meeting in Paris reached an unprecedented agreement to reduce the growth in emissions linked to climate change.

Yet Exxon's new forecast is strikingly similar to the old one. Its main predictions:

— Global energy demand will rise 25 percent from 2014 to 2040, led by developing nations in Asia, Latin America and the Middle East. The International Energy Agency recently forecast a one-third increase by 2040.

— Oil use will grow 25 percent in that period, although it will account for a slightly smaller share of overall energy, and use of natural gas will jump 56 percent.

— Together, oil and gas will account for 57 percent of the world's energy, up from 56 percent in 2014.

— Coal's share will slide from will slip to 20 percent from 26 percent.

—Nuclear and biomass will each account for 8 percent of energy in 2040, hydro 3 percent, and other renewables 4 percent. Exxon thinks alternative fuels will become a staple in power generation but grow more slowly in transportation because of technology and cost issues.

— Carbon emissions will rise about 11 percent between 2014 and 2040. Emissions will fall 21 percent in industrialized nations but rise 32 percent in developing ones, notably India and countries in Latin America.

Exxon sees a slightly smaller increase in carbon emissions than it forecast in December 2014 after adjusting for the earlier study's different time period; 2010 to 2040. Technology and climate-change policies are among the reasons.

Critics said the Exxon forecast understates pressure to reduce emissions of gases blamed for climate change. According to U.S. science agencies, 2015 was by far the hottest year in 136 years of record-keeping. At Paris, nearly 200 nations vowed to limit global warming below 2 degrees Celsius (3.6 degrees Fahrenheit) compared with pre-industrial levels.

Energy researcher Jonathan Koomey of Stanford University said there will be pressure for more aggressive action and that Exxon was making assumptions most favorable to continued use of oil and gas.

"I don't think they are saying things that are crazy—the Exxon people are very sharp," Koomey said, "but they are painting a picture of a world in which there is not significant climate action, and that's not the world we're going to live in the next 25 years."

James Leaton, head of research for the UK-based Carbon Tracker Initiative, said Exxon overstated energy demand, underestimated an increasing role for renewables and ignored looming changes in energy.

"It is very easy to justify business as usual if nothing is changing in your outlook," he said. Oil and gas companies will shrink because "technology and policy will curtail demand for their product."

Colton said Exxon took the December agreement in Paris and climate-change policies into account when forecasting emissions. "We already had a good basis for estimating what was going to happen," he said.

Colton declined to say whether Exxon believes the goals of the climate-change deal will be met. He said the company considers environmental policies on a country-by-country basis, "then we have to handicap what we think is really going to happen"—whether regulations will be delayed or whether they'll take effect at all.