

MANAGEMENT

Big Oil's Reluctance to Go Green

by David Salisbury



American oil companies have made public commitments to exploring renewable energy options. But to date, most have spent only 1 percent of their budget on renewable projects.

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Many scientists around the world concur that the planet needs to drastically reduce carbon emissions. They warn that nations need to take unprecedented actions to cut emissions within the next 10 years in order to contain global warming to an increase of 1.5 degrees Celsius, or 2.7 Fahrenheit. Big oil companies like Shell, Total, Statoil, and Exxon have announced a series of “green” investments – in wind farms, electric battery storage systems, and carbon capture and storage. Total plans to dedicate €200m on transforming an unprofitable oil refinery into a biofuel plant and \$500m a year to renewables. Total

made its first real drive into renewable energy five years ago, with its \$1.4 billion acquisition of SunPower, one of the largest solar panel makers in the U.S. Shell has established a new low-carbon and renewables division called New Energies with \$1.7 billion invested.

Everyone Will Pay for Not Stepping Up

However, these efforts are not enough – drastic changes are necessary to avoid ecological catastrophe. These top oil companies have jointly spent only 1 percent of their 2018 budgets on clean energy. [4] With less domestic pressure to diversify, U.S. companies have not embraced renewables in the same way as their European and Asian peers. Europe's big oil companies account for 70 percent of global renewable capacity. Norway's Equinor plans to spend 15-20 percent of its budget on renewables by 2030. The Oil and Gas Climate Initiative (OGCI), which brings together 13 of the world's top oil and gas companies, pledged in early 2018 to slash emissions of a potent greenhouse gas by a fifth by 2025.

This is in reaction to scientists' recent climate change warnings. Current emissions are around 40 billion tons a year and need to drop at least 1 billion every year over the next decade. Fossil fuel companies are attempting a compromise by shifting towards producing gas, the least polluting fossil fuel, and one that they say will play a major role in reducing emissions by replacing dirtier coal to meet the rising demand for electricity. However, this effort still does not meet scientists' demands for clean renewable energy to become more prevalent and eventually replace fossil fuel emissions entirely.

U.S. big oil also stands to be left behind economically for their reluctance to make larger green energy efforts. Given that the world consumes about 86 million barrels of crude oil per day, experts conclude that the world's oil supply will run dry in around 55 years. These companies are getting increasing calls from many of their shareholders to invest in green energy, not only to take more account of the environment but also to be on the ground level for the future of the world's energy supply. The recent collapse in crude to \$45 per barrel has exacerbated problems for the industry. Ironically, Chatham House think tank fellow Paul Stephens estimates that the timeline for companies to embrace green energy or face economic collapse is also around 10 years. The U.S. has been warned that they are

presiding over “stranded assets” of carbon that can never be burned if the world is determined to keep average temperatures from rising no more than 2C (3.6F) above pre-industrial levels.

Incentive to Change

Oil companies set in their old ways need incentive to make necessary changes to green energy. A major reason oil companies are slow to embrace cleaner energy is because the profit margin for renewables is significantly lower than with fossil fuels. [10] The 22 percent return on equity investment for North American onshore projects dwarfs the 5 to 7 percent return on solar projects and the 7 to 9 percent return on wind projects with guaranteed revenue.

However, major energy companies can strengthen the renewables value proposition. [11] They could target projects where barriers to entry for other renewables players are high – making it more likely that they will win in a competitive procurement process. The Middle East and Latin America are breaking record after record for low solar pricing, with auctions regularly coming in under USD \$40/megawatt-hour. This is directly due to their early investments in the emerging solar market. They took advantage of low land and labor costs, now allowing low-cost solar to be possible today. Committing more capital from renewables projects would leave more value on the table for shareholders demanding a strong foothold in the emerging clean energy world.

Embracing a circular economy would also be beneficial to energy companies looking to meet the lower emissions demand while still creating profitable business. In the CMR article “Moving to a Circular Economy in China: Transforming Industrial Parks to Eco-industrial Parks,” the Nanjing Chemical Industrial Park engaged in closed-loop eco-industrial transformation to extend value chains by building products around existing wastes. By reusing by-products like carbon dioxide, sulfur, and hydrogen to make new products, the company not only reduces their carbon footprint, but also increases company value by using waste to create beverage, cement, and sulfuric acid production.



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