

Italian energy group Eni is considering increasing its investment in nuclear fusion, potentially doubling down on a technology considered so uncertain that Eni remains the only global oil company prepared to place a bet on it, Reuters cited.

Eni and bigger rivals such as Shell and BP have been looking at moving into renewable energy as climate change, the falling cost of solar and wind power and a shift to electric vehicles raise doubts over long-term demand for oil.

Reuters reminded that last month Eni committed 50 million euros to one of several projects aiming to produce energy by fusing atoms at temperatures as hot as the sun. Critics still find this process closer to science fiction than commercial reality.

Afterwards, Roberto Casula, Eni's head of development operations and technology, said the company might raise its investment in Commonwealth Fusion System, a firm which is developing the project. He went on to comment that after the transition to renewable energy, nuclear fusion was the real technological breakthrough - a heat production process with no emissions and very limited nuclear waste.

Casula said that the development of a 200-megawatt fusion reactor by 2033 would cost \$3 billion to. So, Commonwealth Fusion System was looking to raise more funds and to draw up an overall investment agreement with a range of financiers. Yet Eni's stake has not been announced although Casula said Eni had signed a deal giving it the right to use the project's intellectual property.

The project is being developed by teams in France, China and Britain who are trying to develop a reactor that can generate more energy than the enormous amount that fusion consumes. It is also crucial to make the reactor safe since it will contain a mass of super-hot gases or plasma.

All such projects are based on a system known as Tokamak, which uses superconducting magnets to hold the plasma at temperatures of up to 100 million degrees, suspending it inside a vacuum chamber without it touching the chamber's walls.

The heat produced by the fusion of hydrogen isotopes is used to spin steam turbines in the conventional way. Thus, they generate electricity.

Source: publics.bg