

Shell Quadruples Renewable-Energy Project Spending

By Dinakar Sethuraman

Oct. 16 (Bloomberg) -- Royal Dutch Shell Plc, Europe's largest oil company, has quadrupled spending on renewable energy projects this year to meet rising demand and a global target of halving emissions by 2050.

Shell has spent \$1 billion in the past five years on carbon capture, biofuel and solar and wind energy projects to cut emissions of greenhouse gases led by carbon dioxide, Graeme Sweeney, executive vice president for future fuels & CO2, said in Singapore today. He didn't give details on the spending.

"Natural gas, liquefied natural gas and advanced biofuels can play a key role in meeting the challenges," Sweeney said. "We need to invest in carbon capture and storage technology so that we can run coal-fired power plants."

Demand for energy is doubling because the world population may increase 40 percent by 2050 and the number of vehicles may double to 2 billion, Sweeney said. China is the world's largest emitter of CO2 and by 2035 its carbon emissions will account for 30 percent of the world's total. CO2 in the atmosphere has increased to 380 parts per million today from 280 ppm in pre-industrial times.

"We should learn to be much more efficient in how we use energy," said Sweeney, who received a doctorate in mathematics from Victoria University of Manchester. "We need vehicles that do 80 miles (130 kilometers) a gallon on an average by 2050."

Renewable sources must account for a third of the global energy produced by 2050 to meet carbon emission goals, Sweeney said. That would mean building associated infrastructure that's two-thirds the size of the current oil and gas system, he said.

Dutch Project

Shell is awaiting approval for what Sweeney says is the world's first CO2 capture project at a coal-power plant in Australia, where the gas blamed for global warming will be stored in a saline aquifer about 2 kilometers below the surface.

The company may get the go-ahead from the Dutch government to tap emissions from Pernis oil refinery, Europe's biggest, and bury them in a depleted gas field, Sweeney said. The project may capture as much as 400,000 metric tons of CO2 a year.

"By 2050, all OECD nations will have full carbon capture and storage associated with power plants," Sweeney said. Carbon-capture technology gathers CO2 during power generation and pipes it into underground storage instead of venting it into the air.

Sweeney, who joined Shell in 1976, didn't comment on the investment in the projects. A 500-megawatt power plant will incur an incremental cost of more than \$1 billion currently for a carbon capture plan, he said.

Cost of Capture

U.S. consulting company McKinsey & Co. has estimated the cost of carbon capture at \$70 to \$90 a ton of carbon, Sweeney said. The procedure is currently not eligible for carbon credits under the United Nations Clean Development Mechanism or the European Union emissions program, he said.

EU emission permits for December delivery traded at 22.99 euros (\$30.80) a ton on London's European Climate Exchange yesterday afternoon. They have added 2.6 percent this year.

Governments around the world are seeking to cut greenhouse gases as the global population rises and economies in China and India grow. Emissions are blamed by scientists for climate change, which may cause stronger storms, drought and food shortages.

Shell supported a plan by the U.K. to slow the development of first-generation biofuels produced from crops including corn and sugarcane, Sweeney said. "We should not advance the size of biofuels at the expense of sustainability," he said.

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