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# All Viable Energy Sources Needed to Meet Future Energy Demand

- Global energy demand is expected to be 35 percent higher in 2030 than it was in 2005
- Bio-fuel produced from algae could be a meaningful part of the solution
- Growing algae consume carbon dioxide, providing greenhouse gas mitigation benefits
- ExxonMobil has committed \$600 million to a long term research and development program to develop advanced bio-fuels from photosynthetic algae

ABU DHABI, United Arab Emirates--(BUSINESS WIRE)-- Meeting the world's [growing energy needs](#) while reducing the impact on the [environment](#) will require the development of all viable sources of energy and [new technology development](#), said Emil Jacobs, Vice President of Research and Development at [ExxonMobil](#) Research and Engineering Company.

In a speech to the [2010 World Future Energy Summit](#), Jacobs outlined the energy challenge facing the world: global energy demand is expected to be 35 percent higher in 2030 than it was in 2005 despite the current economic slowdown and anticipated [efficiency improvements](#).

Providing energy to meet that demand, which is driven by economic expansion largely in developing countries, while protecting the environment will require development of all viable sources of energy and multiple technology breakthroughs, he said.

"Meeting our many energy challenges requires a multidimensional approach," said Jacobs. "We need to put in place programs and policies that help us find new energy supplies, increase energy efficiency, and discover the innovations that can reduce the environmental impact of greater energy use."

One potential part of the solution outlined by Jacobs during his address, was the development of next generation [bio-fuel from algae](#).

"We believe that bio-fuel produced by algae could be a meaningful part of the solution in the future to produce an economically viable, low net carbon emission transportation fuel."

"That is why we have embarked upon a \$600 million research and development program to develop advanced bio-fuels from photosynthetic algae that are compatible with today's gasoline and diesel fuels. While significant work and years of research and development still must be completed, algae-based fuels could help meet the world's growing demand for transportation fuel while reducing greenhouse gas emissions," said Jacobs.

The new algae bio-fuels program complements ExxonMobil's ongoing efforts to [reduce](#)

[emissions](#) in its own operations and by consumers of its products. In the past 5 years ExxonMobil has invested more than \$1.5 billion on activities that improve energy efficiency and reduce greenhouse gas emissions. Initiatives include technologies to improve automobile efficiency, such as tire liners that keep tires inflated longer, advanced fuel-economy engine oil and light-weight automobile plastics. As well, the company is researching enhanced engine efficiency, has developed an improved lithium battery separator film for hybrid electric cars, and sponsors breakthrough research into ways to improve solar energy, bio-fuels and carbon capture and storage.

#### About ExxonMobil

[ExxonMobil](#), the largest publicly traded international oil and gas company, uses technology and innovation to help meet the world's growing energy needs. ExxonMobil holds an industry-leading inventory of resources, is the largest refiner and marketer of petroleum products, and its chemical company is one of the largest in the world. For more information, visit [www.exxonmobil.com](http://www.exxonmobil.com).

ExxonMobil participates in two oil concessions in the United Arab Emirates, one onshore and one offshore. The offshore Upper Zakum (ExxonMobil interest, 28 percent), is one of the world's largest oil fields, with approximately 50 billion barrels originally in place, and less than 10 percent of the resource produced to date. In 2007, The ExxonMobil Technology Center opened in Abu Dhabi to allow staff working on Upper Zakum access to industry's most advanced technology in areas of reservoir management, well management and production operations. ExxonMobil downstream affiliates or joint ventures in the UAE market jet fuel, lubricants, and chemical products in the UAE and the Middle East.

Source: Exxon Mobil Corporation