

ExxonMobil Expands Low-Emissions Technology Research with Universities in India

- Five-year agreements signed with Indian Institute of Technology, Madras and Bombay
- Research agreements focus on biofuels, gas conversion and industrial sector emissions reduction
- Recent projects include a life cycle assessment study for India's power sector

IRVING, Texas--(BUSINESS WIRE)-- <u>ExxonMobil</u> said today that it has signed agreements with the Indian Institute of Technology locations in Madras and Bombay, further expanding its extensive portfolio of research collaboration with India's universities.

The five-year agreements focus on progressing research in biofuels and bio-products, gas transport and conversion, climate and environment, and low-emissions technologies for the power and industrial sectors. The agreements will partner the institutes' areas of expertise with ExxonMobil's research.

These collaborations are recent additions to a <u>series of partnerships</u> ExxonMobil has established to progress innovative, lower-emissions research programs with more than 80 universities, five energy centers and multiple private sector partners. The company has spent \$10 billion since 2000 developing and deploying lower-emissions energy solutions.

"These agreements will give us a better understanding of how to progress and apply technologies in India, and develop breakthrough lower-emissions solutions that can make a difference globally," said Vijay Swarup, vice president of research and development at ExxonMobil Research and Engineering Company.

Indian Institute of Technology (IIT) Madras is a public engineering institute located in Chennai, Tamil Nadu and has been ranked as India's top engineering institute for the fourth consecutive year by India's Ministry of Human Resource Development. IIT Bombay is a public engineering institute located in Powai, Mumbai and is widely recognized as a leader in engineering, education and research. The IIT system has 23 institutes, each of which is autonomous and linked through a common council, which oversees their administration.

"IIT Madras is committed to providing sustainable solutions in the energy, chemicals and waste management sectors, and I am confident about our collaboration with ExxonMobil to achieve these goals," said Professor Ravindra Gettu, dean of industrial consultancy and sponsored research of IIT Madras.

"IIT Bombay values its relationship with ExxonMobil and the cause associated with it," said

Professor Milind Atrey, dean of research and development at IIT Bombay. "We are sure that this relationship will be long lasting and yield fruitful results."

Recently, ExxonMobil conducted a joint study with IIT Bombay and the Council for Energy, Environment and Water, a leading India-based think-tank, focusing on the <u>life cycle</u> <u>greenhouse gas (GHG) emissions</u> associated with India's power sector. The study looked at India's projected electricity demand growth over the next 20 to 30 years and compared emissions associated with power generated by domestic coal and liquefied natural gas (LNG) imported from the United States. It found that, on average, life cycle GHG emissions from LNG imported into India are approximately 54 percent lower than those associated with India coal.

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 one of the largest refiners and marketers of petroleum products, and its chemical company is one of the largest in the world. For more information, visit <u>www.exxonmobil.com</u> or follow us on Twitter at <u>www.twitter.com/exxonmobil</u>.

<u>Cautionary Statement</u>: Statements of future events or conditions in this release are forwardlooking statements. Actual future results, including project plans and timing and the impact and results of new technologies, including efficiency gains and emission reductions, could vary depending on the outcome of further research and testing; the development and competitiveness of alternative technologies; the ability to scale pilot projects on a costeffective basis; political and regulatory developments; and other factors discussed in this release and under the heading "Factors Affecting Future Results" on the Investors page of ExxonMobil's website at exxonmobil.com.

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