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DBT dedicates Bio-Energy Research Centre to nation

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IndianOil's R&D Centre has recently set up a bio-energy research center jointly with Department of Biotechnology, Government of India. This center was dedicated to the nation by Prof. K VijayRaghavan, secretary, Department of Biotechnology, government of India, in the presence of IndianOil's chairman and functional directors at the sprawling research and development Center, located in Faridabad on the outskirts of the national capital.

This marks an important event for development of technology for advanced biofuels in the country. This center, costing about Rs 50 crore is funded equally by IOC and DBT.

Addressing the IndianOil personnel on the occasion, Prof. VijayRaghavan said, "The origin of biology and its advancement from understanding nature's engineering to now being able to engineer nature has led to understanding of how and why human and animal systems work in a particular fashion. He advocated application of knowledge of advanced genomic-engineering for designer biofuels. He also emphasized to work in collaborative way where top Indian and foreign scientists work jointly on cutting-edge technologies. The DBT-IOC center for advanced biofuel research, with its advanced facilities can act as a nucleus of innovative technologies."

Speaking on the occasion, Mr Butola, chairman IOCL, said, "IndianOil realized early on the importance of alternative fuels in our energy basket. Over the last few years, we have allocated considerable resources for research in this area. The dedication of this Center for Advanced Bioenergy Research marks a significant step in the nation's quest for affordable, clean and secure energy. He emphasized the need to act differently and make this center a global leader by development of few distinct and disruptive technologies."

Dr R K Malhotra, Director (R&D), IndianOil, said, "We have exhaustive research plans in core areas catering to business of the corporation like refining and petrochemical process technologies, catalysts, lubricant and fuel additives research etc. At the same time, we plan to allocate at least one-third of total resources on futuristic technologies including alternative and renewable energy, gasification, biotechnology and nanotechnology etc.

The center has established a state-of-the-art lignocellulosic ethanol pilot plant costing, about Rs 8 crore in technical collaboration with National Renewable Energy Laboratories, Department of Energy of US, and has the capability to study the pre-treatment of various agricultural waste such as rice straw, cotton stalk, wheat straw and their subsequent conversion to alcohol using sophisticated enzymes.

The center has also developed a novel and patented process to use very low value acetate streams to grow a special type of algae which is very rich in oil and value added products like omega fatty acids. A global leader in advanced biofuels, M/s Lanzatech of USA that has developed a process to produce acetates from fermentation of carbon dioxide-Hydrogen mixtures, has shown keen interest to integrate the process. It is expected that this technology would be a game changer for production of algae and high value chemicals. This will be a distinct technology for carbon dioxide utilization for production of ethanol and chemicals.