

Renewable energy technology developed by UK university, IIT Ropar launched

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RUPNAGAR: A new renewable energy technology for biomass conversion from agriculture waste, developed by scientists of the European Bioenergy Research Institute (EBRI) at Aston University (AU), United Kingdom (UK) in international research collaboration with Indian Institute of Technology (IIT) Ropar, was formally launched at village Khwaspura near here, on Tuesday.

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Officials from Aston University, UK, and British Deputy High Commission, Chandigarh during launch of a renewable energy project at Khwaspura village near Rupnagar on Tuesday.

The technology developed with funding from the Oglesby Charitable Trust at AU is housed in a container unit that can be transported between rural locations by a tractor and is operated by the villagers themselves.

Robert Berry, executive dean, school of engineering and applied science at Aston University said, "Every year farmers throughout India burn millions of tonnes of crop residue. This burning process has a negative impact on the environment and economy as this straw is wasted and has serious implications on health and society due to the smoke and fumes produced."

Berry said the project titled Energy Harvest takes agricultural waste left over from the harvests such as rice and wheat straw and EBRI's technology heats them in controlled conditions. The process generates oil, gas and biochar. Each one of these products is useful and means that the harvest waste now has a value as it is put to use rather than simply being burnt.

"The oil produced can be mixed with diesel and used in engines to drive water pumps found on the agricultural land in the region, the gas can be used for power generation while the biochar can be used as a fertiliser to increase crop growth," he added.

The technology has the potential to stimulate growth and provide a cost-effective, reliable and sustainable form of decentralised power generation to address the local needs of heat and energy. Berry further added.

IIT Ropar Director MK Surappa said "I am delighted that IIT Ropar is collaborating with EBRI on this project. IIT Ropar has provided laboratory facilities to enable essential testing and research to be conducted. Technical support throughout the trials that have taken place has also been given."

Suppa added that open field burning is a big problem for India and he hopes this project will provide a socially and economically viable solution for farming communities, not only in Punjab, but also for the rest of the country.

"The farmers of village Khwaspura will be provided oil produced through the technology for running the diesel engines to see the benefits of the same. This innovative technology will also be made available as a pilot phase in village Hussainpur, Ladal of Rupnagar district."

Oglesby Charitable Trust chairman Michael Oglesby, British deputy high commissioner at Chandigarh David Elliot, Professor Aston Business School Prasanta Dey, EBRI director Andreas Hornung, AU associate professor Sudhakar Sagi, IIT Ropar registrar A Palanivel, IIT Ropar associate professor, school of mechanical materials and energy engineering Harpreet Singh were also present on the occasion.