

Bangalore firm, Novozymes to make biofuel from seaweed

Sea6 Energy to contribute offshore cultivation technology

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Global biotech major Novozymes has partnered with Bangalore-based biotech start-up Sea6 Energy for exploratory research and joint development of a process for production of biofuels from seaweed.

The research alliance is expected to develop and utilise enzymes to convert seaweed-based carbohydrates to sugar, which can then be fermented to produce ethanol for fuel, fine chemicals,

proteins for food, and fertilizers for plants.

Novozymes will provide research, development besides manufacturing enzymes for the conversion process, while Sea6 Energy will contribute its offshore seaweed cultivation technology.

The company is currently being incubated at IIT-Madras at its business centre with both the biotechnology and ocean engineering departments providing vital technical inputs.

Mr Shrikumar Suryanarayan, Chairman of Sea6 Energy, said: "We have developed ocean-farming structures in south Tamil Nadu coast that are robust and versatile compared to traditional methods of seaweed cultivation. These structures can be used to create large-scale seaweed farms in offshore locations. In addition, Sea6 Energy has also pioneered approaches to fermenting the sugars derived from seaweed to produce fuel in a manner that

requires minimal use of fresh water resources."

"The technology developed by us is sustainable; we have side-stepped by not using fertile land to grow weeds, use fresh water or extensive fertiliser applications. Since the country is close to Equator and has huge coastline with abundant warm sea to grow weeds, we plan to exploit it," he added.

Regarding investment and costs, Mr Suryanarayan said: "Each party bears the cost on

50:50 basis. In this partnership, we look forward to Novozymes developing an efficient enzymatic process to convert seaweed to sugar."

Commenting on the partnership, Mr Per Falholt, Executive Vice-President and CSO of Novozymes, said: "Seaweed is a natural complement to our efforts to convert other types of biomass to fuel ethanol. More than half of the dry mass in seaweed is sugar, and the potential is therefore significant."

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