OriginOil Patents Surface Mounted Algae Biofuel

LOS ANGELES — OriginOil, Inc. today announced an innovative production system using a type of algae that attaches itself to growth surfaces. The new system helps pursue clean water goals while generating algae for fuel and other valuable products in wastewater treatment plants.

"Previous attempts at using surface-mounted algae were not very scalable," said OriginOil CEO Riggs Eckelberry. "OriginOil's Attached Growth System delivers scalability and throughput in an industrial process that delivers light more efficiently to grow algae for fuel and helps process wastewater at the same time."

The company recently filed for patent protection of the new Attached Growth System, its ninth patent application, entitled "Methods and Apparatus for Growing Algae on a Solid Surface." OriginOil will integrate the process into the demonstration algae system now being built at its headquarters.

Growing algae in water is a challenge because as it grows, the algae thickens and stops light. One solution is OriginOil's Helix Bioreactor(TM) which puts the lights inside the tank. Another method is to rotate the algae periodically out of the water so it can be exposed to the light. OriginOil's Attached Growth System uses types of algae that will attach to surfaces rotating in and out of the water, exposing the algae to sunlight or artificial light. At harvest time, the algae is scraped off as a sludge, greatly decreasing the energy cost of dewatering during oil extraction.

In wastewater treatment plants, OriginOil's Attached Growth System can be configured to encourage bacterial growth in addition to the algae. Combining algal and bacterial growth makes for better nutrient extraction than either one of them alone, contributing to clean water goals while making fuel and absorbing CO2.

OriginOil Chief Scientist and clean water veteran Dr. Vikram Pattarkine said: "We demonstrated in our cost analysis, at the National Algae Association in Houston earlier this month, that algae can be far more profitable when located in wastewater treatment environments. This technology will multiply the benefit."

CEO Eckelberry added: "We are proud to present this technology while the second Governors' Global Climate Summit is in progress here in Los Angeles. In addition to being a renewable energy pioneer, California is in the grips of a long-term drought and can clearly use any technology that allies clean water with sustainable fuel production."

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