

Wastewater: Energy of the future?

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Professor Jurg Keller at Australia's University of Queensland said he and his colleagues have discovered how to turn wastewater into electricity.

"We're very excited about it," he told the Sydney Morning Herald. "It has never been achieved before and there is really massive potential in this application."

Keller said the complex process involves extracting the chemical energy from pollutants in wastewater and converting it to electricity using microbial fuel cells.

"It's all happening in a thin biofilm, a sort of slime layer on the electrode where bacteria are growing and directly producing an electrical current," Keller told the newspaper, saying electricity was generated from the slime in much the same way energy is released when wood is burned.

Keller said it is unlikely wastewater will provide power on a large scale. He said the most obvious application is powering wastewater treatment plants, particularly in developing countries or areas with an unreliable power supply.

"This is not a solution to any energy crisis," he added. "It is primarily a wastewater treatment operation, but we're doing it in a way that generates energy, as opposed to using a lot of energy."

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