

# Coffee power

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[bug on mfc](#) Soon coffee producers in Columbia could be producing coffee power thanks to funding from the UK government. The idea is to produce electricity from coffee waste using bacteria in microbial fuel cells. This is the area I did my doctorate in- that is microbial fuel cells (not coffee). I've blogged on it in the past and a more technical explanation is [here](#). Some types of bacteria have the ability to transfer electrons to external compounds therefore producing a current. Coffee waste will either contain such bacteria or will pick them up from the environment that the coffee waste is put in. There are sufficient energy source molecules present in the coffee waste to drive the process. The advantage is that coffee waste will constitute a disposal problem. You cannot just dump it in a river. Bacteria will break it down and use all the oxygen suffocating the fish and other river life. Microbial fuel cells are also very very efficient. Almost 100% of the "fuels" potential energy is transferred to electricity. In a conventional fuel cell its about 50%. The big problem with microbial fuel cells is that they produce physically very small amounts of power. This make them a [niche energy source](#). They are typically suited to recovering some electricity from waste as part of a process. Incidentally the university of Surrey who did the research have come up with really cheap kit to carry out the whole coffee power process in costing a few pounds. Neil

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