

Hydrokinetic proposal for Mississippi river

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(PhysOrg.com) -- Everyone is looking for alternative forms of energy, and one company proposes to generate electricity from the flow of the river Mississippi in the US, without using dams to control the water flow.

The company, Free Flow Power (FFP) from Gloucester in Massachusetts, has high hopes for its proposals because, unlike tidal hydroelectricity generation, the river water is fresh and will therefore be expected to produce fewer corrosion problems. According to US army data, the river water at New Orleans flows at about 6 kph (4 mph), and this flow could turn the blades of submerged turbines sufficiently to generate electricity to power thousands of homes, especially as moving water can generate 800 times more [energy](#) than wind.

The proposal should work in theory, but it is still unclear whether or not hydrokinetic power is feasible commercially. FFP has already carried out a six-month test of a submerged [turbine](#) at Baton Rouge, and spokesman Jon Guidroz said they were happy with the results, although he gave few details.

The proposal for the Mississippi is to anchor concrete pilings deep in the river, and attach turbines to them. The only thing visible from the shore would be the cables emerging at the banks. The turbines, each with seven 3 meter (10 foot) blades, would turn very slowly to reduce the hazard to fish and marine mammals, although the noise of the turbines could still affect the behavior of animals using the river.

The design also takes the aquatic environment into account, even though some efficiency was sacrificed. The turbines are lubricated only by water, so no hazardous lubricants can leak into the river if a part breaks.

The company plans to start [generating electricity](#) from the river in 2013, but the project must first be approved by the Federal Energy Regulatory Commission (FERC). A FERC spokesman said there were over 100 applications on file for hydroelectric and hydrokinetic projects, including proposals for the Mississippi and Ohio [rivers](#), which are large enough to have the potential to make hydrokinetic energy financially viable. Two other applications for hydrokinetic permits (one by FFP and one by Morgan City) are for the Wax Lake Outlet of the Atchafalaya river that empties into the Gulf of Mexico.

More information: Free Flow Power - www.free-flow-power.com/Technology.html

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