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*Energy Down the Drain!*

People need alternative energy because current sources (fossil fuels) create pollution which endangers life on Earth. This investigation involved creating a hydroelectric turbine as a source of renewable energy. The essential design criteria included the following: (1) 13 volts of electricity must be generated, (2) the turbine must fit inside of a 7.5 cm pipe and spin 360 degrees, and (3) the generator or voltage probe was not damaged by water. The prototype met most of the design criteria. The turbine fit in the pipe 100%, and none of the electrical equipment was damaged; however, 13 volts of electricity was not generated. Based on the analysis, the next prototype would have a larger generator with a higher voltage, and 12 blades on the turbine. This would allow the turbine to catch more water and generate more electricity.