

## ABSTRAK

Dealer channel utilization of clean drinking water conducted by Prof. J.Chen, et al, as chairman of the research team and a professor of Hong Kong University, using underground pipelines as a producer of electrical power, so as to turn on electronic sensors and modules that are used to monitor the quality and quantity of fresh water directly drinking. Research on the turbine type of bulb (bulb) conducted by a team J.Chen, et al, narrowed to only two kinds of turbines that is, the perforated shear turbine (drag hollow turbine) and solid shear turbine (solid drag turbine).

With the research on turbine type of bulb power plants Pikohidro become more attractive, so that the researchers intend to design and build a vertical axis turbine (vertical axis water turbine) type of bulb on the system pikohidro, as a producer of electrical energy utilizing river flow in the plumbing. With the hope of the amount of electric power to be generated by the system can turn this pikohidro used for lighting and electrical energy storage.