

# Towards Green Energy Exploitation: The Review on Gravitational Water Vortex Power Plant

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## **Abstract**

In order to realize the potential of small hydro power (SHP), the Gravitational Water Vortex Power Plant (GWVPP) is considered to be a good candidate. GWVPP is a green technology of ultra low head (about 0.7m) applicable in small hydro power (SHP) where a mechanical energy of free surface flowing water is converted to kinetic energy through turbine by water vortex principle. GWVPP technology can be used in electricity generation for rural electrification in both developed and underdeveloped countries. Since this technology is new, it is neither well-developed nor well-disseminated. Similarly, there are no or limited available literatures on turbines design parameters and/or geometry, basin structure, inlet channel structure, outlet channel structure, optimal diameter of the turbine and other parameters. Thus, the article aims at determining the gaps hindering the development and dissemination of GWVPP technology.

**Keywords:** GWVPP, SHP, water vortex, ultra low head, turbine