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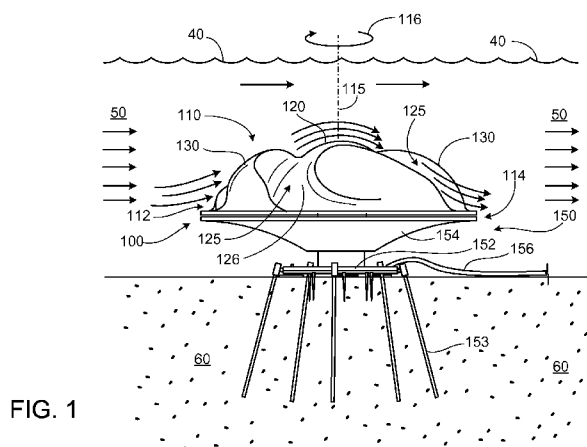


FIG. 1

(57) Abstract: Some embodiments of a turbine system described herein provide a turbine that rotates in response to off-axis fluid flow, such as water flowing in a generally horizontal direction that is generally perpendicular to a vertical axis of rotation. The rotation of the turbine can drive a generator to output electrical energy.