

ABSTRACT

A TURBINE DEVICE

There is provided a turbine device which includes a turbine and a transmission assembly. There
5 turbine includes a housing including a volute configured to direct a fluid flow path over a runner
disposed therein for rotating relative to the housing a first rotatable shaft coupled thereto. A
transmission assembly is engaged with the housing. The transmission assembly comprises a first
rotatable member disposed therein which is magnetically coupled at one end with the first
rotatable shaft and coupled at the other end to a power generation system. The fluid flow path in
10 the turbine is excluded from the transmission assembly by the housing. A system and method for
operating the turbine device is also provided.

Fig 2