

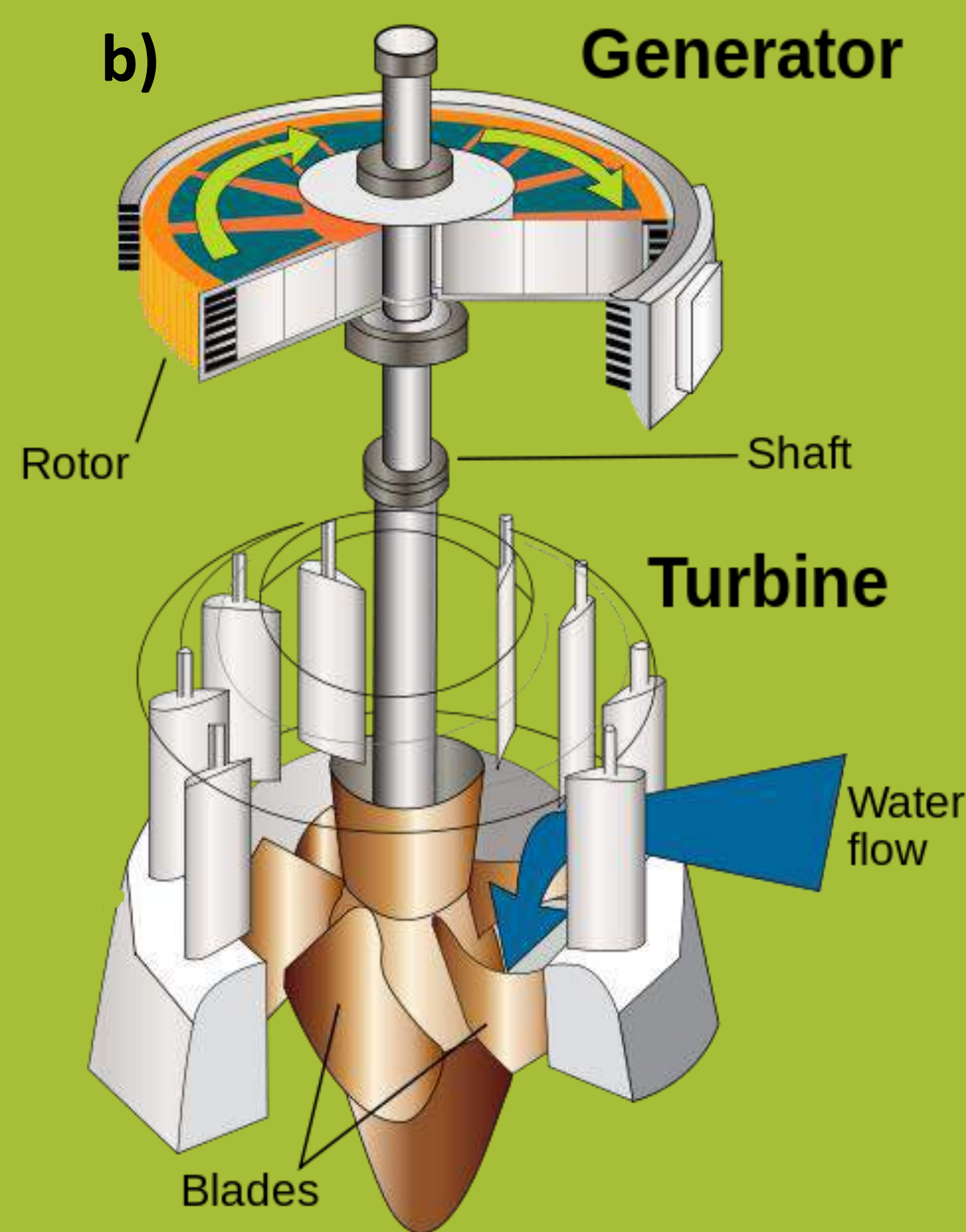
# Renewable Energy

## Hydro Power



**a) Hydro Dam:** The water held above the power station flows through penstocks to the turbine.

**b) Turbine:** The turbine spins the generator rotor, which carries a set of electromagnets. These spin within a stationary set of insulated copper windings to generate electricity.



Example hydro turbine and electric generator

**c) Switchyard:** Here, switches allow the generator to be connected and disconnected from the national electricity grid as required.

**d) Transmission lines:** Generated electricity travels through transmission lines to parts of the country where energy is required.

Benmore Power Station, Meridian Energy  
 Photo courtesy of Vladimir Abelentsev (EPECentre scholarship recipient)  
 Text derived from "Discover Benmore", Meridian Energy

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