How Does Pumped Storage Hydropower Work?

TO GENERATE ELECTRICITY:
Step 1: Water released downhill to lower reservoir
Step 2: Water spins turbine to generate electricity
Step 3: Power added to grid (when energy demand is high)

TO RECHARGE THE SYSTEM:
Step 1: Power taken from grid (when energy demand is low)
Step 2: Turbine used to pump water from lower reservoir uphill
Step 3: Water refills upper reservoir

THINGS TO CONSIDER:
> Water is needed to fill reservoirs from local water sources.
> Evaporation from reservoirs will need to be replaced each year.
> Required infrastructure includes:
  - Build out of upper and lower reservoirs
  - Construction of pump house with turbine and generator
  - Installation of tunnels and pipelines connecting reservoirs
  - Access to connect to power substations