Pump storage systems are a recent development of the hydroelectric power station.

The first power station which generated electricity from the flow of water was built on the River Wey at Godalming, Surrey and began generating electricity in 1881. It provided electricity for a small town, mainly to light the streets.

In 1895, the first large hydroelectric power station was built at Niagara Falls in New York State and was operated by the Niagara Falls Power Company.

A large pump storage scheme was built in North Wales at Dinorwig.