

THE EFFECT OF USING DIFFERENT TYPES OF SURGE TANK ON THE COST OF HYDRO ENGINEERING PLANT – PUMPED STORAGE HE PLANT VRILO, BOSNIA AND HERZEGOVINA

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ABSTRACT

For countries and regions enriched with water surfaces such as rivers and lakes, the cheapest source of power is water. Hydro power is called also “pure power” as it has minor pollution effects on the environment and health if compared with other types of power sources. Surge tanks have important role in the functionality of HE plant as they balance the pressure variation in cases of sudden rise or decrease. They are a massive construction that can receive the water in several cases. The cost of these tanks varies according to several factors such as dimensions, construction and maintaining works and shape. This paper aims to compare the cost of several shapes and types of surge tank in the case of Pumped storage HE plant Vrilo by fixing the needed outcomes such as the maximum and minimum level of water needed for producing the expected energy, the location of tank and the materials used for it. This paper will also give some advices about choosing the type, shape and dimension for surge tanks while designing them.