

Title (en)
STEAM POWER PLANT HAVING AN IMPROVED CONTROL RESERVE

Title (de)
DAMPFKRAFTWERK MIT VERBESSERTER REGELRESERVE

Title (fr)
CENTRALE THERMIQUE À VAPEUR À RÉSERVE DE RÉGULATION AMÉLIORÉE

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Application
EP 18716912 A 20180321

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Abstract (en)
[origin: WO2018172415A1] The invention relates to a method and to an apparatus for providing additional control power of a power plant process (10). The power plant process (10) comprises a steam turbine (11) connected into a water vapor circuit, having at least one high-pressure part (12) and a medium-pressure (13) and/or no-pressure part (15), which are connected to one another via a cold intermediate superheating line, a steam generator and a condenser (22). According to the invention, a steam reservoir is provided, which is formed as a Ruths reservoir (5) and in which an encapsulated PCM reservoir (7) is integrated. To charge the steam reservoir, hot steam is taken from the cold intermediate superheating line (17), between the high-pressure (12) and the medium-pressure (13) and/or low-pressure part (14) of the steam turbine, and for charging, and thus for providing additional control power, steam is taken from the steam reservoir (5) and fed back into the water vapor circuit between the steam generator and the condenser (22).

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