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(57) Abstract :

The present invention relates to a system (100) of hybrid reverse osmosis (RO) based on electricity and without electricity to purify water. The water flows from the overhead tank (W) via a tap (102) to the filter (104) and then to a RO membrane unit (105). The water flows from the RO unit (105) to a storage tank (114) wherein a switch 1 at water level 1 (107) and a switch 2 at water level 2 (108) indicate and maintain the water levels at the respective levels. Instead of electricity, pressure generated by the head (h) of the overhead water tanks (W) is used for reverse osmosis process when the water level is between levels 1 and 2. The system utilizes electricity for the reverse osmosis process only when the water level goes below level 2. Thus, the present invention helps in solving the problem of purifying water in the area having frequent power cuts, during disaster and in multistorey building. This system can save electricity by switching the apparatus and adjusting water level switches 1 and 2 between green and electric RO i.e. hybrid RO apparatus. [figure 1]

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