






INSTALLATION EXAMPLE: SALAMANCA (SPAIN)



GENERAL INFORMATION:



-  SALAMANCA (SPAIN)
-  PRESSURE DROP: 22M
-  FLOW: 2,5 LITERS/SECOND
-  GENERATED POWER: 175W
-  SELF-CONSUMPTION CONNECTED TO GRID

BACKGROUND

The water network of Salamanca has a pressure regulation valve to supply a neighborhood of the city, reducing the pressure from 5,2 to 3bar. Near the pressure reducing valve (PRV) there are different public facilities, specifically an ornamental water fountain located in a garden square. Like in any PRV it is an energy potential traditionally never exploited.

THE SOLUTION

Thanks to the installation of the turbine in parallel with the PRV it is possible to generate 175W, enough to supply the water pump of the fountain, producing savings in energy purchase from the electric company. The turbine charges a 24V battery bank equipped a 220V-50Hz inverter to supply the pump. The installation is still connected to the electric grid but it only takes energy in case of emergency.