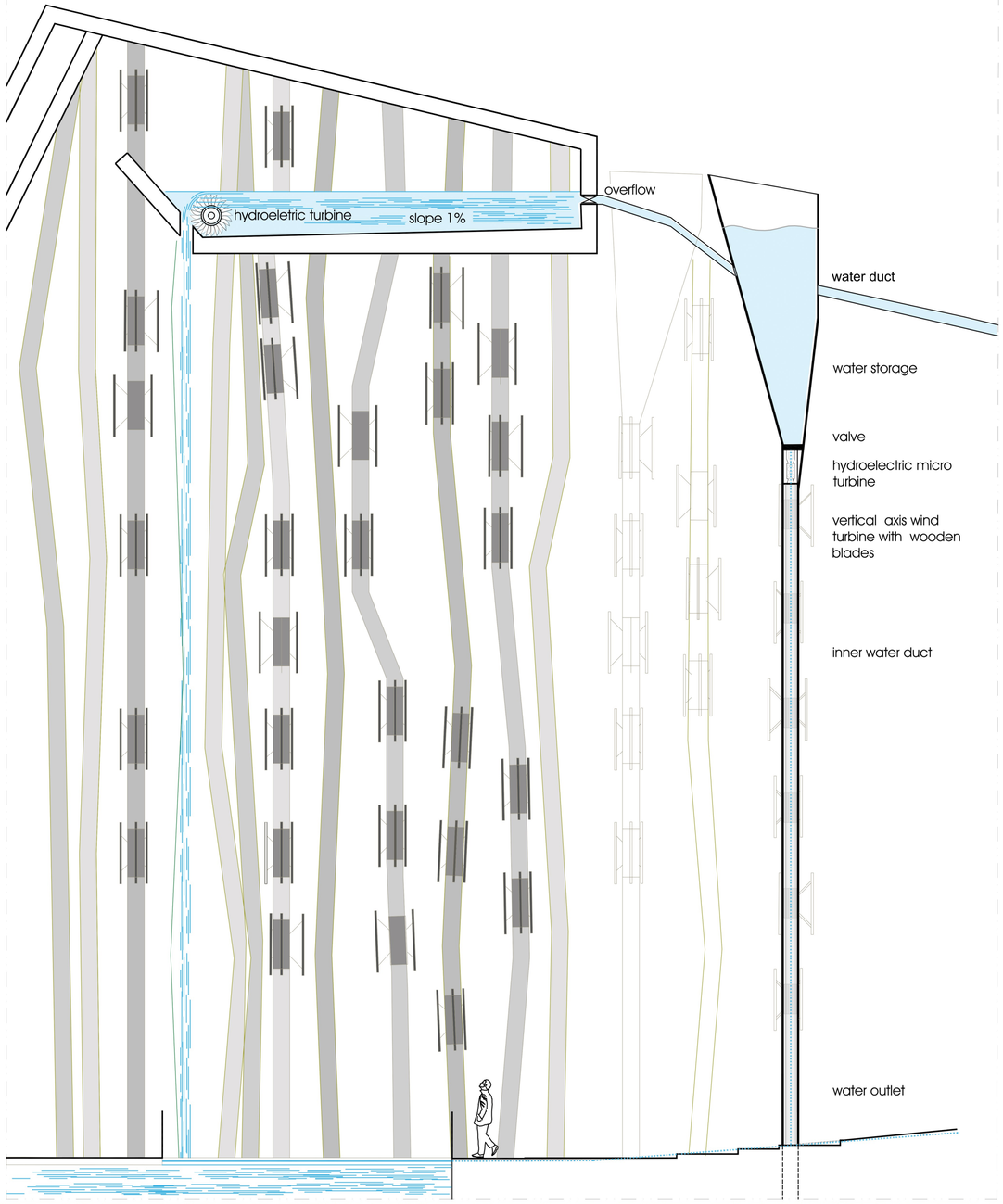
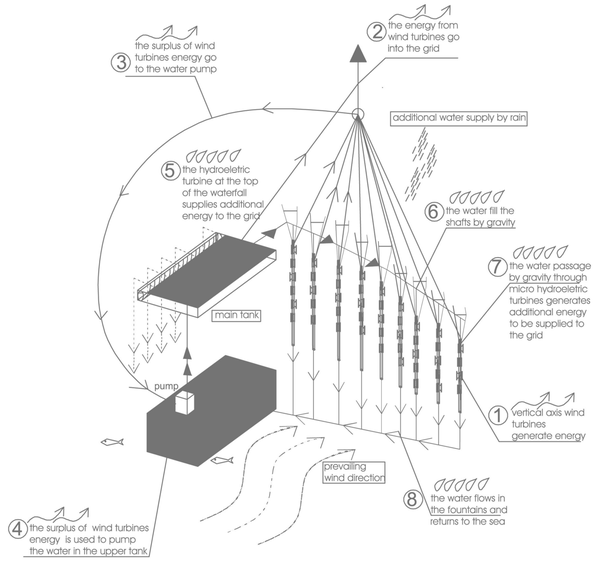
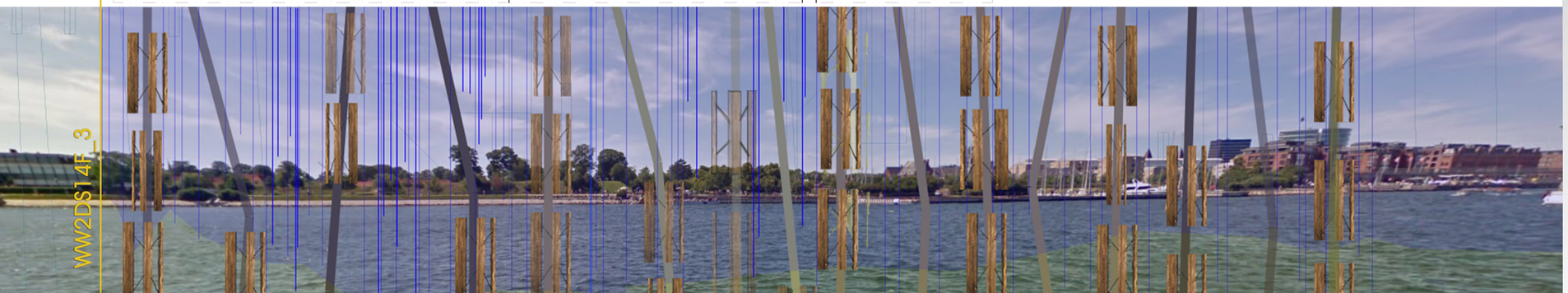


COMBINATED WIND AND WATER ENERGY SYSTEM





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ENERGY CYCLE

The cycle of energy production is based on simple principles that combines innovative technology that use the WIND POWER and WATER stored masses to produce energy. Starting from the idea to take advantage from the main natural element of the site, the water and the prevalent climate aspect, the wind. The project propose a single and continuous energy cycle mainly based on the use of HYDROELECTRIC TURBINE and vertical axis wind turbine.

The energy cycle starts from the wind power, that activates the vertical axis turbines. The VERTICAL TURBINES produce energy that goes mainly to the local grid and then in a small percentage to the base of the structure, where is accommodate the pump that push up the sea water to tank upraised of 60 meters. So, the supply of energy generated by wind turbines stoke up the water pump and put in action the WATERFALL.

At the top of the structure in the water tank are situated the hydroelectric turbines that generate supply energy that goes toward to the local grid, in case of necessity is possible to use also the rainwater stored in the open top of the shaft.

The RAINWATER that fill the shafts falls by gravity and pass through the hydroelectric turbines generating additional energy and stoke up the fountains and the water fall.

TYPE OF TECHNOLOGIES	n°	total kW
micro hydroelectric vertical turbines 10 kW each one	50	500
main hydroelectric turbine 50 kW each one	1	50
vertical axis wind turbines 2 kW each one	200	400
INSTALLED POWER	950 kW	
ANNUAL CAPACITY	600 MWh	

80 % of energy is by the wind
20 % of energy is by the water