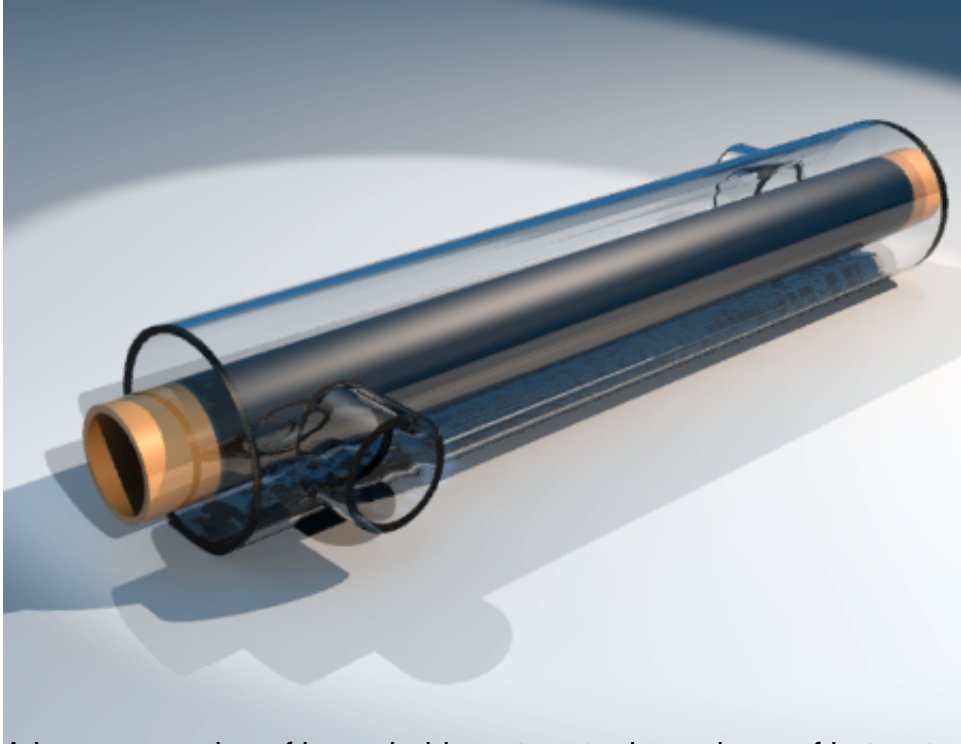


Heat recovery from water



A large proportion of household wastewater is made up of hot water. That heat can be put to various uses. A simple technique that offers high yields is a shower heat retrieval system: as the hot water drains away, it heats the cold water flowing to the shower. Shower heat retrieval systems can offer yields of 50%. [agentschap.nl]

Heat exchangers can be used to extract heat from sewer water or from the effluent of sewage treatment plants. An additional benefit in the latter method of heat recovery is that less heat enters the surface water. [VROM/TAUW, 2010]

Potential savings are around 15%. According to a study performed by Stowa, the Dutch Foundation for Applied Water Research, the most efficient solution is to position the heat recovery systems directly at the drainage point, for example in a shower or where the effluent exits the sewage treatment plant or at pumps. [Kluck, 2011]

Using rainwater for flushing will limit the required energy necessary for providing drinking water.

Valuable minerals such as nitrate, potassium and phosphate can be recovered from wastewater and reused in the urban agriculture cycle.