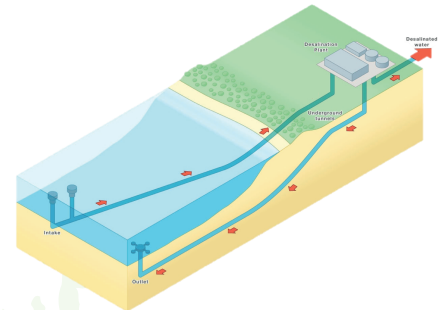


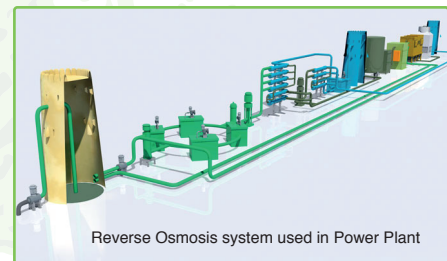


"Due to the freshwater scarcity (only 3% of the total water available on our planet is fresh) seawater desalination, in both domestic and industrial context, is needed. Taking into account the water utilisation in industrial environment, more than 62% of existing power plants use Reverse Osmosis Systems (RO), one of the four technologies most used to desalinate water."



Actual Solution used by Power Plant to Desalinate salty water

"RO system is composed by a set of membranes which hold the salt and let through the water. Its costs cover more than 70% of total power plant maintenance costs but so far, the RO system is the latest technology in salty water desalination in terms of innovation and efficiency"



Reverse Osmosis system used in Power Plant

"Actual solution strongly impact membrane lifecycle causing huge energy dispersion. Our solution, instead, wants to preserve and increase the membranes' lifecycle using a set of basins full of algae solution which are able to reduce fouling in the water and to reduce the telescoping effect (where membrane leaf extending beyond the spacing material between the leaves). "

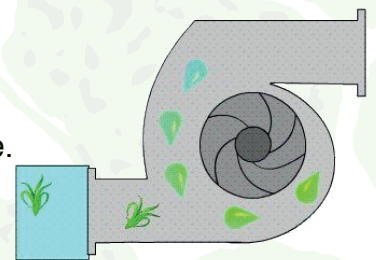


Algae basins which allow to purify salty water

Adding just one step more in the desalination process it is possible to recover approximately 150 m<sup>3</sup> of water per day from all around the world.

The process is described below:

- The seawater goes directly from the sea to the basins, represented above.
- The salt water stands in the basins and the algae solution begins the water purification.
- After some days in the basins, the purified water mixed with algae solution, goes in a centrifuge (represented below) which is able to separate pure water from algae solution.
- From the output of the centrifuge, the pure water goes in the RO system fostering the power plant.
- The algae solution used in the purification process will then be sold as biomass and hydrogen



Centrifuge used to separate Algae from Water

"Our solution not only involves the use of specific algae to pre-treat the water that goes into those plants, taking out metals and impurities that damage the RO system. But Algreen will also support the production of new energy, recycling the waste of the system and converting it into Biomass or Hydrogen."

"Algreen, is here to provide better water for the industry through a simple but effective solution. We're implementing an additional green purification phase for the 20.000 Reverse Osmosis plants that are currently running worldwide."