

Fernando Cortabitarte was born in Spain. He is graduated in chemistry engineer. Nowadays, he works with water into a desalination plant. He is the director of Acciona into that place. We had made him some questions to know more about his job. Here you have his answers:

1- Do you think renewable energy can become the main source of energy globally?

Without any doubt. Nowadays Eolic and photovoltaic energy can compete directly with the traditional resources (nuclear, fuel or coal based energy).

These technologies' costs are even lower than nuclear or fossil energy.

Actually, there are more renewable projects under development around the world than traditional ones.

The future goal for these technologies is the energy storage capability. The next revolution in the energy market will be the massive energy storage devices.

There will not be any limitation for the renewable energy when these elements are available.

2- How many women's work with you in the desalination plant? Do you think that the sex of the person influence on it?

Unfortunately there are less women in the plants than there should be.

Desalination plants are industrial factories and the staffs composition are similar to other industrial factories (iron&steel industry, car manufacturers, etc). There is a different situation at managerial levels where the academic skills are more relevant. 35% of the managers that work in my Department are women. This figure could be higher but it is affected because of our businesses in the Middle East where work is not easy for women.

In my opinion the sex of the person doesn't have any influence in the performance of the tasks.

3- What did you do when you spoke in the celebration of the World Water Day? What have you done this year?

Actually, I didn't do anything specific, but my Company, Acciona Agua, held many visits to our plants (Desalination, Water Treatment and Sewage Water Treatment ones). The visitors use to be primary and high schools, colleges and social collectives from local communities.

In this visits we explain the importance of the water in our lives and how to help to protect the whole Water Live Cicle from our day to day activities.

4- How can we desalinate water?

There are two main technologies to desalinate water from the sea and became it in drinkable water:

Thermal Technologies: Hot is used to evaporate the seawater to condensate the

steam afterwards. By this way, the salt remains in the part that is not evaporated and we obtain pure water from the condensate. It is a kind of distillation.

- **Reverse Osmosis (RO) Technologies:** We use reverse osmosis membranes to separate pure water from the sea water obtaining one part of drinkable water and another one of brine. Commonly we obtain 50% of pure water and 50% of brine with the double amount of salt compared to the seawater. In order to run this process we have to pump the seawater through the RO membranes at high pressures (60-70 bar).

Nowadays Reverse Osmosis Plants are more extended than the Thermal ones because are more efficient in terms of energy consumption, although there are many Thermal plants installed in the Middle East where the oil is cheap and the energy cost impact is lower than other regions.

5- Can you tell me more things about Acciona company?

Acciona has two main activities: Energy and Infrastructures. In Energy we only develop renewable projects. In Infrastructures we develop all type of projects: water, roads, tunnels, ports, ... One of the main driver of the Company is the sustainability and the fight against Global Climate Change.

I invite you to visit our website (www.acciona.com) where you can find more information.

6- Why did you choose this job?

I have been working in the water industry since 1991. Previously I had finished my Ph doctor degree in Chemical Engineering. I developed my post grade studies and research in technologies to reduce emissions to the environment from Power Plants.

So, I focused my studies and skills in the Environment Protection Technologies and when I left the university I had the opportunity to join Aguas del Norte to work in a Sewage Water Plant. After 6 years working there I moved to Pridesa (Acciona Agua's former company) where I continue now.