

# DESALINATION





## Desalination:

Bahrain has an established policy of meeting potable water requirements with desalination plants, and it has a well-developed water utility sector with several large desalination plants that fulfil nearly all of the municipal water requirements. The sector has grown rapidly alongside the kingdom's social and economic development.

Bahrain started desalination of seawater in late seventies of the last century. This was to cater for the economic booming resulted from the drastic increase in oil prices and the accompanying industrial renaissance. Three types of desalination technologies are used in Bahrain, two thermal processes known as Multi Stage Flash and Multi Effect Distillation (MED) and the third is Reverse Osmosis (RO).

Currently, only 16.8% of the total capacity is owned, managed and operated by the government while the rest is owned by the Private Sector, from which the government purchases the potable water based on long-term agreements. Privatization has been an essential part of Bahrain's economic policy and is a major component of its economic reforms and restructuring, which started with privatization of Hidd Power and Water Station. The objective is increasing the participation of the Private Sector, enabling cost recovery and cost reduction and enhancing the efficiency of services and production. Today, all the new stations are private Built, Owned & Operate (BOO) model and the government purchases the potable water from the Independent Water & Power Producers (IWPP).

Due to suitability and quality of seawater at the eastern coast of the island, all the desalination plants have been constructed on this side. Currently there are six desalination plants in Bahrain geographically in sequence from North to South Hidd Power Company, Sitra Power & Water Station, Alba Calcining Plant, Ras Abu Jarjur Brakish Water Reverse Osmosis Plant, AL DUR Power & Water Company and Haya Power and Desalination Company. The installed capacity of these plants are as follow:

	Station Name	Capacity MIGD
1.	Hidd Power Company (HPC)	90
2.	Ras Abu Jarjur BWRO Plant	16
3.	Al Dur Power & Water Company	48
4.	HAYA POWER & DESALINATION COMPANY (2022)	25
5.	ALBA Calcining Plant	7
	<b>Total</b>	<b>186</b>

