

## OPWP study projects 13pc growth in annual desalinated water demand

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MUSCAT -- Demand for desalinated water is projected to more than double over the next seven years from 132.9 million cubic metres (m<sup>3</sup>) per year in 2009 to 320.6 million m<sup>3</sup> by 2016, according to a study by the state-owned Oman Power and Water Procurement Company (OPWP).

The projections, based on a seven-year (2010-2016) demand outlook for power and desalinated water, envisage a hefty 13 per cent rise in annual average consumption growth over this period.

This increase will be fuelled by a number of factors, chiefly population growth and social development, as well as an active policy by the government to shift away from groundwater as a source of potable water supply.

OPWP's findings, issued here recently, provide projections of water demand in the different zones covered by the Main Interconnected System in north Oman and the Salalah System in the south. By 2016, demand is projected to reach 563,000 m<sup>3</sup> per day in the Muscat Zone (an area served by the Al Ghubrah and Barka water supply networks), 236,000 m<sup>3</sup> per day in the Sohar Zone, 82,000 m<sup>3</sup> per day in the Sharqiya Zone, and 31,000 m<sup>3</sup> per day in the Duqm Zone.

To meet likely shortfalls in desalination capacity, OPWP is examining a number of options: delaying the scheduled retirement of some desalination units at Al Ghubrah Power, procuring at least 135,000 cubic metres per day of new capacity at Al Ghubrah, as well as a new desalination plant at Barka, and the possible utilisation of groundwater resources.

To help meet the burgeoning demand for water, the Public Authority for Electricity and Water (PAEW) has identified a requirement for a number of large-sized desalination plants, notably at Al Gubrah (39,000 m<sup>3</sup> per day in 2014), Sohar (135,000 m<sup>3</sup> per day in 2014), Barka (180,000 m<sup>3</sup> per day in 2014) and Sharqiya (22,000 m<sup>3</sup> per day in 2015).

Water demand in the Duqm Zone, an area targeted for major industrial, infrastructure and commercial development in the Wusta region, is also projected to rise steeply over the next seven years. According to the study, at least 45,000 m<sup>3</sup> per day of new desalination capacity will be required in 2014.

Based on these estimates, a new Independent Power and Water Project (IWPP) with a desalination capacity of around 20,000 m<sup>3</sup> per day is deemed as adequate to meet the expected demand in this zone through 2016.

Investments in smaller water schemes will help meet any supply shortfall within this zone, the study points out.

In the Dhofar Zone (which includes the wilayats of Salalah, Taqah and Mirbat), annual water demand is projected to rise from 25.9 million m<sup>3</sup> in 2009 to 48.6 million m<sup>3</sup> by 2016, representing an annual average growth rate of 9.4 per cent.

The Directorate General of Water in the Office of the Minister of State and Governor of Dhofar, which is responsible for water supplies in the governorate, has pledged to switch entirely to desalinated water to meet the region's water requirements. Groundwater, which has been the principal source of supply these past years, will be tapped only during contingencies.

The Salalah IWPP, which is presently under construction, will meet the lion's share of water demand in the Dhofar Zone when it comes on stream in the last quarter of next year. The IWPP has a desalination component of 68,000 m<sup>3</sup> per day.

Any requirements beyond the capacity of this IWPP will have to be met either through groundwater supplies or through the procurement of a new desalination plant of around 80,000 m<sup>3</sup> per day capacity by 2016, according to the study.