

**Asset Management Directorate
Guidelines
For The Design Of Water
Distribution Networks In
Al Ain Region**

GL.AM.01

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Approved by:

Managing Director

Note (a): Water consumption rates for other uses, e.g. swimming pools and cooling services, shall be determined following consultation with the Distribution Company.

Note (b): For some of the categories, the Responsible Person has a choice of consumption rate. The Distribution Company must approve the selected rate.

6.11 Peak and Minimum Demand Factors

The AADC and ADWEC demand forecast figures represent the average day peak month demand (i.e. peak month demand not absolute average demand)

For the intermittent supply the distribution networks shall be designed for the peak day demand peak based on the supply period/hours.

In the absence of accurate data the following peak and minimum demand factors shall be applied for the design of the water distribution networks.

Table 2: Peak and Minimum Demand Factors

Demand	Peak Factor	Minimum Factor	Remarks
Average Demand	1.00	1.00	Total yearly demand divided by 365 days
Peak/ Minimum Month Demand	1.10 to 1.20	0.85 to 0.95	
Peak/ Minimum Week Demand	1.20 to 1.40	0.80 to 0.90	
Peak/Minimum Day Demand	1.25 to 1.50	0.75 to 0.85	
Peak/minimum Hour demand & Peak/ Minimum instantaneous demand	1.50 to 3.00	0.30 to 0.50	

Typically the water pipelines downstream the storage facilities shall be designed for peak hour demand and the water pipelines upstream storage facilities shall be designed for peak day or peak month demand. The storage facility shall have sufficient capacity to tackle the demand fluctuation during the day.

Following the RSB recommendations the water distribution networks in Abu Dhabi Emirates shall be designed for the peak day demand due to the presence of customers tanks of sufficient capacity to tackle the demand fluctuation during the day. Also, it may be requested by AADC in some cases, to design the networks upstream the storage facilities (customers tanks) for peak month demand.