

Marlborough Lines Ltd.
Distribution Loss Factors and Codes
from 1 April 2003

The Distribution Loss Factor is a multiplier that is applied to the energy sales metered at a connection point to calculate the volume of energy which was purchased at the Grid Exit Point to supply that connection.

This process makes allowance for the energy that is "lost" between the Grid Exit Point and the connection.

Mathematically: $\text{Loss Factor} = 1 / (1 - \text{Loss Ratio})$

The Loss Ratio is the proportion of energy purchases that are "lost". It is this ratio that is usually published for Distribution Networks.

The proportion of energy lost is higher when the system load is high. Therefore, Loss Factors have been provided to reflect the different loading levels that apply during winter and summer.

A significant proportion of the energy loss occurs in transformers. Therefore, different sets of Loss Factors have been provided depending on the voltage of metering.

With LV (230/400 V) metering losses in the transformer are included, but this is not the case for HV (11kV) metering.

The above result in Loss Factors as follows:

	Season	Loss Code	Loss Factor
LV Metering	winter	MLLV	1.0807
	summer	MLLV	1.0750
HV Metering	winter	MLHV	1.0412
	summer	MLHV	1.0381

The winter period is 1 May to 30 September inclusive.