

Distribution loss factors

(applying from 1 April 2009)
(reissued without change from 1 April 2010)

This schedule provides the distribution loss factors for energy reconciliation that we are required to provide to the registry under the *Electricity Governance Rules*, Part E, Schedule E1, rule 5.

The *distribution loss factor* is a multiplier that is applied to the energy sales metered at the connection to calculate the volume of energy purchased at the grid exit point to supply that connection. This process makes allowance for energy that is 'used up' or 'lost' by the delivery system between the grid exit point and the connection. Mathematically, loss factor = $1/(1-\text{loss ratio})$ where *loss ratio* is the proportion of energy purchases that are 'used up' or 'lost' and it is this ratio that is usually published for distribution networks.

The distribution loss factors shown below only account for losses that are usually referred to as 'technical losses' in the industry. These technical losses arise from a number of factors but predominantly from the heating that occurs in transformers, lines and cables. We recognise significant differences in loss levels in different situations as follows:

- 11kV-metered versus LV-metered connections because the energy measured at 11kV-metered connections does not include losses from the distribution transformers and the LV lines and cables, which are downstream from the 11kV meter; and
- Urban versus rural parts of our network because the differences in their loading densities and network design result in significantly different loss levels.

Consequently, we have different loss factors to distinguish between these situations, as follows:

Metering at connection	Loss code	Loss factors	
		Load (consumption)	Export (generation)
<i>Urban GXPs</i>			
LV - metered	ULV	1.051	1.051
11kV - metered	U11	1.022	1.022
<i>Rural GXPs</i>			
LV - metered	RLV	1.067	1.067
11kV - metered	R11	1.053	1.053

Note

Urban grid exit points are ADD0111, ADD0661, BRY0111, BRY0661, ISL0331, ISL0661, MLN0661, MLN0664, PAP0111, and PAP0661.

Rural grid exit points are APS0111, CLH0111, COL0111, HOR0331, HOR0661, SPN0331, and SPN0661.