

Distribution loss factors

(applying from 1 April 2024)

This schedule provides the distribution loss factors for energy reconciliation that we are required to provide to the registry under the *Electricity Industry Participation Code*, Part 11, Schedule 11.1, Clause 22.

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.

The distribution loss factors shown below 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.

Within our loss factors we recognise differences in loss levels between 11kV metered and low voltage (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. We also consider and set specific loss factors for connections in our Large Capacity Connection category where specific assets are identified for our delivery service within our pricing model.

Other factors, such as differences between day and night and different times of year, have been considered but do not lead to significant differences within the accuracy of the overall loss factor determination. Geographic differences are also not distinguished on the basis of changes such as temporary network switching, transfer of ownership between Orion and Transpower, pockets of urban areas within rural areas and the progressive expansion of urban areas.

Our declared loss factors are:

Category	Loss code	Loss factors	
		Load (consumption)	Export (generation)
Low voltage metered connections (230V or 400V)	LVL	1.0636	1.0636
11kV metered connections	11L	1.0229	1.0229
Connection specific factors	SSL	1.0068	1.0068
	FSL	1.0068	1.0068

The applicable loss factor code applying for a connection is available from the Electricity Authority’s registry (for those with access) and is also available to look-up on our website at www.oriongroup.co.nz/SearchICP.