

# Australian Energy Market Commission

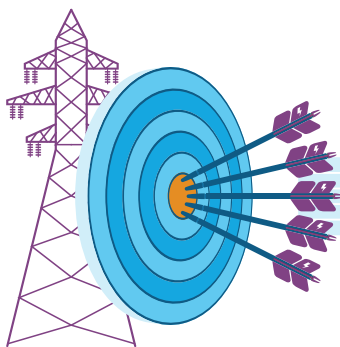
## TRANSMISSION LOSS FACTORS

When you transport electricity across a network of poles and wires, some of it is lost as heat. Transmission loss factors are calculated by the market operator to reflect this loss of electricity.

Generators who are located at the end of the line where transmission is weak will earn less. Transmission loss factors help show new generators what locations are most profitable. In this way, transmission loss factors help signal the best place to locate new generation assets to minimise costs to consumers.

There are different ways to calculate transmission loss factors. These include:

### 1 Dynamic loss factors

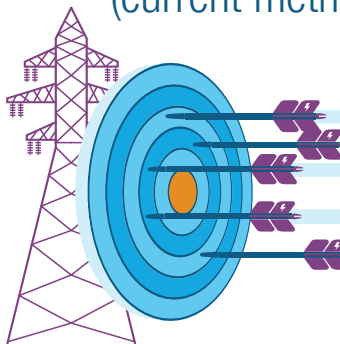


**PRECISE  
LOCALATIONAL  
SIGNAL IN  
REAL TIME**

This method calculates marginal losses at each location in real time, establishing the most accurate value of electricity. It supports efficient investment decisions and dispatch of electricity.

Moving to dynamic loss factors would require significant changes to aspects of the market and IT systems. It is currently being considered alongside broader reforms to transmission access arrangements including new, more powerful locational signals as part of the AEMC's Coordination of generation and transmission investment review (COGATI).

### 2 Marginal loss factors (current method)

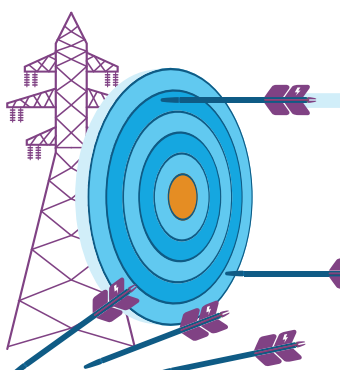


**STRONGER  
LOCALATIONAL  
SIGNAL**

This method sends stronger locational signals for prospective generation investors and developers. It is an annual forecast value based on the marginal losses between a generator and the regional reference node (the place in each region where a 'local' wholesale electricity price is set).

Because marginal loss factors represent the value of electrical energy lost when the next (marginal) unit of electricity is transmitted, it is consistent with other aspects of operating the national electricity market.

### 3 Average loss factors



**WEAKER  
LOCALATIONAL  
SIGNAL**

This method dampens locational signals. In doing so, while it provides higher returns for some investors and developers, it leads to higher dispatch costs and can lead to generators being built in the wrong place, such as at the end of a long, weak line far away from consumers – costing consumers more.

Using average loss factors would cause a wealth transfer from consumers to generators and reduce operational efficiency of the national electricity market.