

Annual Network Safety Performance Objectives (2017)



CONTEXT AND PURPOSE

This Statement has been prepared and published under regulation 31 of the *Electricity (Network Safety) Regulations 2015*, which require Western Power to publish annual Objectives for a specified set of network safety performance incident types, expressed as the maximum number of incidents of that type expected to occur. This Statement covers the financial years 2017/18, 2018/19 and 2019/20.

ESTABLISHING OBJECTIVES

The Objectives in the attached table are the number expected annually for each network incident type specified in the *Regulations*. The same annual numbers apply for all three years covered by this Statement.

Western Power has used a trend based methodology to establish these Objectives, which takes into account historical performance, anticipated levels of funding, and planned construction and maintenance programs over this period.

Description of incident type		Annual Objective 1 July 2017 to 30 June 2020
30(1) (a): a discharge of electricity from the network that causes the electric shock, injury or death of a person or the death of livestock	Human fatality	0
	Human injury	8 (0.8 per 10,000 energised circuit km)
	Livestock fatality	6 (0.6 per 10,000 energised circuit km)
	Electric shock, no injury	239 (23.5 per 10,000 energised circuit km)
30(1)(b): an incident caused by the network, other than a fire, that causes damage to property other than to the network		29 (2.9 per 10,000 energised circuit km)
30(1)(c): a fire caused by the network that causes damage to property other than to the network		86 (8.5 per 10,000 energised circuit km)
30(1)(d)(i): a fire, on a wood pole that is a part of the <u>distribution</u> network, that originated on the pole		455 (7.3 per 10,000 distribution wood poles)
30(1)(d)(ii): a fire, on a wood pole that is a part of the <u>transmission</u> network, that originated on the pole		11 (4.2 per 10,000 transmission wood poles)
30(1)(e)(i): the contacting of 2 or more conductors of the <u>distribution</u> network, of different phases, caused by temperature variations or wind		130 (19.1 per 10,000 energised distribution overhead circuit km)

Description of incident type	Annual Objective 1 July 2017 to 30 June 2020
30(1)(e)(ii): the contacting of 2 or more conductors of the <u>transmission</u> network, of different phases, caused by temperature variations or wind	1 (1.3 per 10,000 energised transmission overhead circuit km)
30(1)(f)(i): an unassisted failure of a <u>hardwood</u> pole that is part of the <u>distribution</u> network	384 (6.2 per 10,000 distribution wood poles)
30(1)(f)(ii): an unassisted failure of a <u>softwood</u> pole that is part of the <u>distribution</u> network	5 (0.1 per 10,000 distribution wood poles)
30(1)(f)(iii): an unassisted failure of a <u>steel</u> pole that is part of the <u>distribution</u> network	1 (0.8 per 10,000 distribution non-wood poles)
30(1)(f)(iv): an unassisted failure of a <u>steel</u> streetlight pole	92 (6.5 per 10,000 steel streetlight poles)
30(1)(f)(v): an unassisted failure of a <u>concrete</u> pole that is part of the <u>distribution</u> network	1 (0.8 per 10,000 distribution non-wood poles)
30(1)(f)(vi): an unassisted failure of a <u>composite fibre, aluminium, or any other type of</u> pole that is part of the <u>distribution</u> network	NA

Description of incident type	Annual Objective 1 July 2017 to 30 June 2020
30(1)(f)(vii): an unassisted failure of a <u>hardwood</u> pole that is part of the <u>transmission</u> network	23 (8.7 per 10,000 transmission wood poles)
30(1)(f)(viii): an unassisted failure of a <u>softwood</u> pole that is part of the <u>transmission</u> network	NA
30(1)(f)(ix): an unassisted failure of a <u>steel</u> pole that is part of the <u>transmission</u> network	1 (0.7 per 10,000 transmission non-wood poles)
30(1)(f)(x): an unassisted failure of a <u>concrete</u> pole that is part of the <u>transmission</u> network	1 (0.7 per 10,000 transmission non-wood poles)
30(1)(f)(xi): an unassisted failure of a <u>composite fibre, aluminium, or any other type of</u> pole that is part of the <u>transmission</u> network	NA
30(1)(g)(i): an unassisted failure of an overhead conductor that is part of the <u>distribution</u> network	341 (50.1 per 10,000 energised distribution overhead circuit km)
30(1)(g)(ii): an unassisted failure of an overhead conductor that is part of the <u>transmission</u> network	2 (2.6 per 10,000 energised transmission overhead circuit km)

Description of incident type	Annual Objective 1 July 2017 to 30 June 2020
30(1)(h)(i): an unassisted failure of a stay wire that is part of the <u>distribution</u> network	166 (10.5 per 10,000 distribution stay wires)
30(1)(h)(ii): an unassisted failure of a stay wire that is part of the <u>transmission</u> network	2 (3.5 per 10,000 transmission stay wires)
30(1)(i)(i): an unassisted failure of an underground cable that is part of the <u>distribution</u> network	3 (1.2 per 10,000 energised distribution underground circuit km)
30(1)(i)(ii): an unassisted failure of an underground cable that is part of the <u>transmission</u> network	1 (0.02 per total energised transmission underground circuit km)

From the perspective of network safety, Western Power strives to maintain and operate its network in a way that results in the least number of incidents as is reasonably possible, recognising that there are inherent safety risks associated with operating an electricity network. Western Power adopts a risk-based approach to planning and delivering work, which aims to eliminate the maximum amount of risk from the network, balancing safety, reliability and affordability.