

Table I

Date	Location	Time frame	Interrupted load	Remark
06/08/95	Israel	19 minutes	~3,140 MW	-
May 1997	Chile	30 minutes	2,000 MW	-
08/14/03	USA-Canada	39 minutes	63,000 MW	Estimated cost: \$ 4-10 billion People affected: 50 million
09/23/03	South Sweden and East Denmark		6,550 MW	People affected: 4 million
07/12/04	Southern Greece	30 minutes	5,000 MW	-
11/11/09	Brazil-Paraguay	68 seconds	24,436 MW	Voltage collapse in part of the system (68 seconds after initial event).

Table II

Index	Threshold/Detection criterion	Remark
Voltage magnitude	-	System dependent, no general criteria
Thevenin impedance matching condition	Either 1 or 0 (for power margins)	For practical purposes less than 1 or bigger than 0
Reactive power reserve	0 or 100	For practical purposes bigger than 0 in terms of Mvar reserve. 100 is threshold value of derived index [21].
Singular value	0	For practical purposes bigger than 0
Eigenvalue	0	For practical purposes bigger than 0
Sensitivities	Change in sign (positive to negative)	Does not require any tuning
SVD	Big change in two consecutively computed largest singular values	System dependent, no general criteria