

FEMA (Federal Emergency Management Agency)

Table 1 PGA Fragility Functions for Small Generation Facilities

Classification	Damage State	Median (g)	β
Small Generation Facilities (EPPS) with Anchored Components	Slight	0.10	0.55
	Moderate	0.21	0.55
	Extensive	0.48	0.50
	Complete	0.78	0.50
Small Generation Facilities (EPPS) with Unanchored Components	Slight	0.10	0.50
	Moderate	0.17	0.50
	Extensive	0.42	0.50
	Complete	0.58	0.55

Table 2 PGA Fragility Functions for Medium/Large Generation Facilities

Classification	Damage State	Median (g)	β
Facility with Anchored Components (EPP3)	Slight	0.10	0.60
	Moderate	0.25	0.60
	Extensive	0.52	0.55
	Complete	0.92	0.55
Facility with Unanchored Components (EPP4)	Slight	0.10	0.60
	Moderate	0.22	0.55
	Extensive	0.49	0.50
	Complete	0.79	0.50

Table 3 Restoration Functions for Electric Power System Components (All Normal Distributions)

Classification	Damage State	Median (days)	σ (days)
Electric Substations	Slight	1.0	0.5
	Moderate	3.0	1.5
	Extensive	7.0	3.5
	Complete	30.0	15.0
Distribution Circuits	Slight	0.3	0.2
	Moderate	1.0	0.5
	Extensive	3.0	1.5
	Complete	7.0	3.0
Generation Facilities	Slight	0.5	0.1
	Moderate	3.6	3.6
	Extensive	22.0	21.0
	Complete	65.0	30.0

CASE STUDY

