

Feeder Wire Risk Evaluation Matrix

Feeder wire runs will be prioritized based on risk value. The risk value is a calculated value based on the following risk factors: number of buildings, installation year, voltage and ampacity. Each risk factor has an importance weight factor. Each feeder will be given a value for each risk factor, see Scaling Factors below.

Scaling Factors

of Buildings

1-6 # of buildings serviced
by wire run

Installation Year

1 1990 - 1999
2 1980 - 1989
3 1970-1979
4 1960-1969

Voltage

1 208 / 240V
2 480 V
3 12000 V

Ampacity

1 <200 A
2 200 - 399A
3 400 – 600A
4 >600A

Option A

Option B

Weighting

Factor

40%

40%

10%

10%

Building	Equipment Name	# of Bldgs	Installation Year		Voltage		Ampacity		Wire Size	Length	Total	Priority
MV-700	Substation 2 - 12kV	6	1971	3	12000	3	600	3	-	1020	4.2	HIGH
MV-1000	Substation 3 - 12kV	3	1971	3	12000	3	600	3	-	460	3	HIGH
600	DPI	2	1960	4	480	2	600	3	350	570	2.9	MEDIUM
500	DPB	2	1960	4	480	2	150	2	1/0	450	2.8	MEDIUM
1400	LL1	2	1960	4	480	2	100	1	2	310	2.7	MEDIUM
300	DPE	1	1960	4	480	2	400	3	500	360	2.5	MEDIUM
1700	DPH	3	1980	2	480	2	400	3	-	380	2.5	LOW
900	DPM	1	1960	4	480	2	125	1	1/0	40	2.3	MEDIUM
200	LC1	1	1960	4	480	2	70	1	4	360	2.3	MEDIUM
900	XM2	1	1960	4	277	1	50	1	12	40	2.2	MEDIUM
600	DPI2	1	1971	3	480	2	1000	4	-	250	2.2	LOW
700	LA	1	1971	3	480	2	600	3	350	60	2.1	LOW
100B	DPA2	1	1974	3	480	2	600	3	500	730	2.1	MEDIUM
700	LA1	1	1972	3	480	2	225	2	4/0	230	2	LOW
100A	DP1	1	1974	3	480	2	225	2	4/0	730	2	MEDIUM
900	DP22	1	1974	3	480	2	225	2	-	40	2	MEDIUM
1100	HDP1	1	1980	2	480	2	1200	4	500	220	1.8	LOW
500	5HV	1	1995	1	480	2	400	3	-	450	1.3	LOW
700	A-1	1	1999	1	240	1	200	2	-	230	1.1	LOW

Distribution Equipment Risk Evaluation Matrix

Distribution equipment will be prioritized based on risk value. The risk value is a calculated value based on the following risk factors: number of buildings, installation year, voltage, ampacity, and location. Each risk factor has an importance weight factor. Each piece of equipment will be given a value for each risk factor, see Scaling Factors below.

Scaling Factors									
# of Buildings		Installation Year		Voltage		Ampacity		Location	
1-20	# of buildings serviced by wire run	1	2000-2019	1	208 / 240V	1	<400 A	1	Interior
		2	1990-1999	2	480 V	2	400 - 799A	2	Exterior
		3	1980-1989	3	12000 V	3	800 – 1000A		
		4	1960-1979			4	>1000A		

- Option A
- Option B

Weighting Factor														
			40%		25%	15%		10%		10%				
Building	Distribution Name	Fed From	Installation Year		# of Bldgs	Location		Voltage		Ampacity		Manufacturer	Total	Priority
MV-900	Substation 1 - 12kV	Utility	1960	4	20	Interior	1	12000	3	600	2	I-T-E	7.25	HIGH
MV-900	MS1	Substation 1	1960	4	11	Interior	1	480	2	2500	4	Federal Pacific Electric	5.1	MEDIUM
MV-700	Substation 2 - 480V	Substation 2	1971	4	6	Exterior	2	480	2	1600	4	Sierra Switchboard Co	4	MEDIUM
MV-700	Substation 2 - 12kV*	Substation 1	1971	4	6	Exterior	2	12000	3	600	2	Sierra Switchboard Co	3.9	MEDIUM
MV-1000	Substation 3 - 480V	Substation 3	1971	4	3	Exterior	2	480	2	3000	4	I-T-E	3.25	MEDIUM
MV-1000	Substation 3 - 12kV*	Substation 1	1971	4	3	Exterior	2	12000	3	600	2	I-T-E	3.15	MEDIUM
600	DPI	MS1	1960	4	2	Interior	1	480	2	600	2	Federal Pacific Electric	2.65	
1400	LL1	DPI	1960	4	2	Interior	1	480	2	100	1	Federal Pacific Electric	2.55	
500	DPB	MS1	1960	4	2	Interior	1	480	2	225	1	Federal Pacific Electric	2.55	
1700	DPH	Substation 2	1980	3	3	Interior	1	480	2	400	2	Zinsco	2.5	
600	DPI2	Substation 2	1971	4	1	Interior	1	480	2	1000	3	Zinsco	2.5	
700	LA	Substation 2	1971	4	1	Interior	1	480	2	600	2	Sierra Switchboard Co	2.4	
100B	DPA2	MS1	1974	4	1	Interior	1	480	2	600	2	I-T-E	2.4	
200	LC1	DPB	1960	4	1	Interior	1	480	2	100	1	Federal Pacific Electric	2.3	
900	DPM	MS1	1960	4	1	Interior	1	480	2	125	1	Federal Pacific Electric	2.3	
700	LA1	Substation 2	1972	4	1	Interior	1	480	2	225	1	Square D Co.	2.3	
100A	DP1	MS1	1974	4	1	Interior	1	480	2	225	1	General Electric Co	2.3	
900	DP22	MS1	-	4	1	Interior	1	480	2	225	1	Federal Pacific Electric	2.3	
MV-1200	HDP1	Substation 4	2009	1	4	Exterior	2	480	2	1200	4	ABB	2.3	
1000	HFD	MS1	2006	2	1	Exterior	2	480	2	800	3	Square D Co.	1.85	
800	HSD	MS1	2005	2	1	Exterior	2	480	2	1000	3	Square D Co.	1.85	
500	5HV	MS1	1995	2	1	Exterior	2	480	2	400	2	Square D Co.	1.75	
3000	PD	DPAF	2008	2	1	Exterior	2	208	1	800	3	Square D Co.	1.75	
1200	DPAF	HDP1	2009	1	2	Exterior	2	480	2	800	3	Square D Co.	1.7	
700	A-1	Substation 2	1999	2	1	Interior	1	240	1	200	1	Square D Co.	1.4	
1100	HDP1	Substation 3	2011	1	1	Interior	1	480	2	1200	4	Square D Co.	1.4	
400	DPD1	MS1	2009	1	1	Interior	1	480	2	800	3	-	1.3	
1200	HPB	HDP1	2009	1	1	Exterior	2	480	2	200	1	Square D Co.	1.25	
1800	DS	Substation 3	2009	1	1	Exterior	2	208	1	400	2	Challenger	1.25	
2000	DP-2000	Substation 3	2003	1	1	Exterior	2	208	1	400	2	Square D Co.	1.25	
300	DPE	MS1	-	1	1	Interior	1	480	2	400	2	Eaton	1.2	
1200	DPJ	HDP1	2009	1	1	Interior	1	480	2	600	2	Eaton	1.2	
600	A	Substation 2	2016	1	1	Interior	1	208	1	400	2	Square D Co.	1.1	

* To include 12kV-480V transformer