

Table S1.  $U_{\max}$  values at the end of an active conductor after various failures for the structure with the original and optimized (sequentially) parameter sets.

Option	After failure 1	$U_{\max}$ , V	After failure 2	$U_{\max}$ , V	After failure 3	$U_{\max}$ , V
1	R-OC, R-R, R-R	0.283, 0.271	R-OC, R-OC, R-R	0.295, 0.291	R-OC, R-OC, R-OC	0.327, 0.315
					R-OC, OC-R, R-OC	0.320, 0.311
			R-OC, OC-R, R-R	0.295, 0.292	R-OC, R-SC, R-OC	0.308, 0.303
			R-OC, R-SC, R-R	0.319, 0.311	R-OC, SC-R, R-OC	0.304, 0.301
			R-OC, SC-R, R-R	0.324, 0.316	R-SC, R-SC, R-OC	0.307, 0.302
					R-SC, SC-R, R-OC	0.321, 0.313
	R-SC, R-R, R-R	0.284, 0.274	R-SC, R-SC, R-R	0.299, 0.298	R-SC, R-OC, R-OC	0.305, 0.307
			R-SC, SC-R, R-R	0.309, 0.304	R-SC, OC-R, R-OC	0.311, 0.312
			R-SC, R-OC, R-R	0.315, 0.315	R-OC, R-OC, R-SC	0.277, 0.286
			R-SC, OC-R, R-R	0.321, 0.319	R-OC, OC-R, R-SC	0.269, 0.283
					R-OC, R-SC, R-SC	0.330, 0.319
2	R-R, R-OC, R-R	0.279, 0.290	R-R, R-OC, R-OC	0.281, 0.282	R-OC, SC-R, R-SC	0.346, 0.331
			R-R, R-OC, OC-R	0.276, 0.279	R-SC, R-SC, R-SC	0.290, 0.293
			R-R, R-OC, R-SC	0.297, 0.304	R-SC, SC-R, R-SC	0.294, 0.294
			R-R, R-OC, SC-R	0.298, 0.304	R-SC, R-OC, R-SC	0.327, 0.323
					R-SC, OC-R, R-SC	0.333, 0.326
	R-R, R-SC, R-R	0.285, 0.289	R-R, R-SC, R-SC	0.296, 0.296	R-OC, R-OC, SC-R	0.275, 0.278
			R-R, R-SC, SC-R	0.305, 0.302	R-OC, OC-R, SC-R	0.274, 0.275
			R-R, R-SC, R-OC	0.280, 0.285	R-OC, R-SC, SC-R	0.341, 0.326
			R-R, R-SC, OC-R	0.285, 0.290	R-OC, SC-R, SC-R	0.336, 0.323
					R-SC, R-SC, SC-R	0.278, 0.284
3	R-R, R-R, R-OC	0.250, 0.249	R-OC, R-R, R-OC	0.282, 0.268	R-SC, SC-R, SC-R	0.293, 0.295
			OC-R, R-R, R-OC	0.278, 0.263	R-SC, R-OC, SC-R	0.337, 0.330
			R-SC, R-R, R-OC	0.281, 0.269	R-SC, OC-R, SC-R	0.343, 0.334
			SC-R, R-R, R-OC	0.287, 0.273	R-OC, R-OC, OC-R	0.314, 0.304
					R-OC, OC-R, OC-R	0.320, 0.309
	R-R, R-R, R-SC	0.266, 0.262	R-SC, R-R, R-SC	0.294, 0.281	R-OC, R-SC, OC-R	0.299, 0.297
			SC-R, R-R, R-SC	0.303, 0.287	R-OC, SC-R, OC-R	0.314, 0.309
			R-OC, R-R, R-SC	0.302, 0.284	R-SC, R-SC, OC-R	0.318, 0.311
			OC-R, R-R, R-SC	0.303, 0.284	R-SC, SC-R, OC-R	0.321, 0.312
					R-SC, R-OC, OC-R	0.296, 0.301
					R-SC, OC-R, OC-R	0.300, 0.304

Table S2.  $U_{\max}$  values at the end of an active conductor after various failures for the structure with the original parameter set.

Option	After failure 1	$U_{\max}$ , V	After failure 2	$U_{\max}$ , V	After failure 3	$U_{\max}$ , V
1	R-OC, R-R, R-R	0.513	R-OC, R-OC, R-R	0.511	R-OC, R-OC, R-OC	0.509
					R-OC, OC-R, R-OC	0.509
			R-OC, OC-R, R-R	0.513	R-OC, R-SC, R-OC	0.513
			R-OC, R-SC, R-R	0.515	R-OC, SC-R, R-OC	0.513
					R-SC, R-SC, R-OC	0.492
			R-OC, SC-R, R-R	0.513	R-SC, SC-R, R-OC	0.496
	R-SC, R-R, R-R	0.492	R-SC, R-SC, R-R	0.490	R-SC, R-OC, R-OC	0.496
			R-SC, SC-R, R-R	0.492	R-SC, OC-R, R-OC	0.492
			R-SC, R-OC, R-R	0.494	R-OC, R-OC, R-SC	0.513
					R-OC, OC-R, R-SC	0.517
			R-SC, OC-R, R-R	0.492	R-OC, R-SC, R-SC	0.517
					R-OC, SC-R, R-SC	0.513
2	R-R, R-OC, R-R	0.502	R-R, R-OC, R-OC	0.502	R-SC, R-SC, R-SC	0.487
			R-R, R-OC, OC-R	0.500	R-SC, SC-R, R-SC	0.488
			R-R, R-OC, R-SC	0.502	R-SC, R-OC, R-SC	0.492
					R-SC, OC-R, R-SC	0.492
			R-R, R-OC, SC-R	0.505	R-OC, R-OC, SC-R	0.513
	R-R, R-SC, R-R	0.502	R-R, R-SC, R-SC	0.502	R-OC, OC-R, SC-R	0.513
			R-R, R-SC, SC-R	0.500	R-OC, R-SC, SC-R	0.513
			R-R, R-SC, R-OC	0.502	R-OC, SC-R, SC-R	0.513
					R-SC, R-SC, SC-R	0.488
			R-R, R-SC, OC-R	0.505	R-SC, SC-R, SC-R	0.492
3	R-R, R-R, R-OC	0.502	R-OC, R-R, R-OC	0.511	R-SC, R-OC, SC-R	0.496
			OC-R, R-R, R-OC	0.513	R-SC, OC-R, SC-R	0.492
			R-SC, R-R, R-OC	0.494	R-OC, R-OC, OC-R	0.509
					R-OC, OC-R, OC-R	0.513
			SC-R, R-R, R-OC	0.492	R-OC, R-SC, OC-R	0.517
	R-R, R-R, R-SC	0.502	R-SC, R-R, R-SC	0.490	R-OC, SC-R, OC-R	0.513
			SC-R, R-R, R-SC	0.492	R-SC, R-SC, OC-R	0.492
			R-OC, R-R, R-SC	0.515	R-SC, SC-R, OC-R	0.492
					R-SC, R-OC, OC-R	0.492
			OC-R, R-R, R-SC	0.513	R-SC, OC-R, OC-R	0.492

Table S3.  $U_{\max}$  values at the end of an active conductor after various failures for the structure with the optimized parameter set.

Option	After failure 1	$U_{\max}$ , V	After failure 2	$U_{\max}$ , V	After failure 3	$U_{\max}$ , V
1	R-OC, A, R-R, R-R	0.482	R-OC, A, R-R, R-OC	0.469	R-OC, R-OC, A, R-OC	0.554
					R-OC, OC-R, A, R-OC	0.555
			R-SC, A, R-R, R-SC	0.524	R-OC, R-SC, A, R-OC	0.569
			R-OC, A, R-R, OC-R	0.471	R-OC, SC-R, A, R-OC	0.569
			R-SC, A, R-R, SC-R	0.527	R-SC, R-SC, A, R-OC	0.619
					R-SC, SC-R, A, R-OC	0.618
	R-SC, A, R-R, R-R	0.517	R-OC, A, R-R, R-SC	0.493	R-SC, R-OC, A, R-OC	0.603
			R-SC, A, R-R, R-OC	0.509	R-SC, OC-R, A, R-OC	0.604
			R-OC, A, R-R, SC-R	0.491	R-OC, R-OC, A, R-SC	0.560
			R-SC, A, R-R, OC-R	0.505	R-OC, OC-R, A, R-SC	0.559
					R-OC, R-SC, A, R-SC	0.572
2	R-OC, R-R, A, R-R	0.766	R-OC, R-R, A, R-OC	0.763	R-OC, SC-R, A, R-SC	0.573
			R-SC, R-R, A, R-SC	0.721	R-SC, R-SC, A, R-SC	0.620
			R-OC, R-R, A, OC-R	0.762	R-SC, SC-R, A, R-SC	0.622
			R-SC, R-R, A, SC-R	0.721	R-SC, R-OC, A, R-SC	0.608
					R-SC, OC-R, A, R-SC	0.607
	R-SC, R-R, A, R-R	0.718	R-OC, R-R, A, R-SC	0.769	R-OC, R-OC, A, SC-R	0.559
			R-SC, R-R, A, R-OC	0.715	R-OC, OC-R, A, SC-R	0.560
			R-OC, R-R, A, SC-R	0.769	R-OC, R-SC, A, SC-R	0.573
			R-SC, R-R, A, OC-R	0.715	R-OC, SC-R, A, SC-R	0.572
					R-SC, R-SC, A, SC-R	0.622
3	R-OC, R-R, R-R, A	0.477	–	–	R-SC, SC-R, A, SC-R	0.621
			–	–	R-SC, R-OC, A, SC-R	0.607
			–	–	R-SC, OC-R, A, SC-R	0.608
			–	–	R-OC, R-OC, A, OC-R	0.556
					R-OC, OC-R, A, OC-R	0.555
	R-SC, R-R, R-R, A	0.507	–	–	R-OC, R-SC, A, OC-R	0.569
			–	–	R-OC, SC-R, A, OC-R	0.570
			–	–	R-SC, R-SC, A, OC-R	0.618
			–	–	R-SC, SC-R, A, OC-R	0.619
			–	–	R-SC, R-OC, A, OC-R	0.604
			–	–	R-SC, OC-R, A, OC-R	0.603

Table S4.  $U_{\max}$  values at the end of an active conductor after various failures for the structure with parameter sets 1, 2, 3.

Option	After failure 1	$U_{\max}$ , V	After failure 2	$U_{\max}$ , V	After failure 3	$U_{\max}$ , V
1	R-OC, R-R, R-R	0.259, 0.268, 0.284	R-OC, R-OC, R-R	0.287, 0.29, 0.285	R-OC, R-OC, R-OC	0.323, 0.333, 0.322
					R-OC, OC-R, R-OC	0.318, 0.324, 0.313
			R-OC, OC-R, R-R	0.286, 0.289, 0.284	R-OC, R-SC, R-OC	0.305, 0.308, 0.307
			R-OC, R-SC, R-R	0.316, 0.320, 0.321	R-OC, SC-R, R-OC	0.302, 0.303, 0.302
			R-OC, SC-R, R-R	0.324, 0.329, 0.326	R-SC, R-SC, R-OC	0.316, 0.313, 0.317
					R-SC, SC-R, R-OC	0.334, 0.335, 0.333
	R-SC, R-R, R-R	0.27, 0.284, 0.286	R-SC, R-SC, R-R	0.308, 0.303, 0.305	R-SC, R-OC, R-OC	0.325, 0.326, 0.309
			R-SC, SC-R, R-R	0.318, 0.317, 0.315	R-SC, OC-R, R-OC	0.328, 0.330, 0.314
			R-SC, R-OC, R-R	0.335, 0.339, 0.322	R-OC, R-OC, R-SC	0.318, 0.312, 0.281
			R-SC, OC-R, R-R	0.338, 0.344, 0.328	R-OC, OC-R, R-SC	0.317, 0.310, 0.278
					R-OC, R-SC, R-SC	0.325, 0.333, 0.334
			R-R, R-OC, R-OC	0.290, 0.285, 0.274	R-OC, SC-R, R-SC	0.343, 0.355, 0.35
2	R-R, R-OC, R-R	0.311, 0.305, 0.287	R-R, R-OC, OC-R	0.289, 0.280, 0.268	R-SC, R-SC, R-SC	0.298, 0.291, 0.292
			R-R, R-OC, R-SC	0.331, 0.331, 0.308	R-SC, SC-R, R-SC	0.299, 0.294, 0.297
			R-R, R-OC, SC-R	0.332, 0.333, 0.309	R-SC, R-OC, R-SC	0.347, 0.353, 0.336
					R-SC, OC-R, R-SC	0.350, 0.359, 0.342
			R-R, R-SC, R-SC	0.308, 0.307, 0.298	R-OC, R-OC, SC-R	0.306, 0.298, 0.271
			R-R, R-SC, SC-R	0.318, 0.321, 0.308	R-OC, OC-R, SC-R	0.302, 0.292, 0.275
	R-R, R-SC, R-R	0.298, 0.294, 0.286	R-R, R-SC, R-OC	0.304, 0.295, 0.291	R-OC, R-SC, SC-R	0.338, 0.349, 0.346
			R-R, R-SC, OC-R	0.312, 0.304, 0.297	R-OC, SC-R, SC-R	0.335, 0.343, 0.341
					R-SC, R-SC, SC-R	0.299, 0.290, 0.281
			R-OC, R-R, R-OC	0.254, 0.268, 0.273	R-SC, SC-R, SC-R	0.305, 0.299, 0.297
			OC-R, R-R, R-OC	0.244, 0.258, 0.267	R-SC, R-OC, SC-R	0.358, 0.369, 0.348
			R-SC, R-R, R-OC	0.267, 0.273, 0.290	R-SC, OC-R, SC-R	0.361, 0.373, 0.352
3	R-R, R-R, R-OC	0.25, 0.248, 0.259	SC-R, R-R, R-OC	0.272, 0.279, 0.296	R-OC, R-OC, OC-R	0.306, 0.314, 0.307
					R-OC, OC-R, OC-R	0.309, 0.318, 0.313
			R-SC, R-R, R-SC	0.279, 0.296, 0.298	R-OC, R-SC, OC-R	0.296, 0.293, 0.296
					R-OC, SC-R, OC-R	0.313, 0.316, 0.313
			SC-R, R-R, R-SC	0.289, 0.309, 0.308	R-SC, R-SC, OC-R	0.329, 0.329, 0.329
			R-OC, R-R, R-SC	0.275, 0.289, 0.305	R-SC, SC-R, OC-R	0.331, 0.333, 0.333
	R-R, R-R, R-SC	0.266, 0.274, 0.269	OC-R, R-R, R-SC	0.277, 0.292, 0.306	R-SC, R-OC, OC-R	0.312, 0.310, 0.297
					R-SC, OC-R, OC-R	0.316, 0.316, 0.303

Table S5.  $U_{\max}$  values at the end of an active conductor after various failures for the structure with the optimized parameter set.

Option	After failure 1	$U_{\max}$ , V	After failure 2	$U_{\max}$ , V	After failure 3	$U_{\max}$ , V
1	R-OC, R-R, R-R	0.282	R-OC, R-OC, R-R	0.293	R-OC, R-OC, R-OC	0.345
					R-OC, OC-R, R-OC	0.330
			R-OC, OC-R, R-R	0.291	R-OC, R-SC, R-OC	0.322
			R-OC, R-SC, R-R	0.334	R-OC, SC-R, R-OC	0.312
					R-SC, R-SC, R-OC	0.308
			R-OC, SC-R, R-R	0.344	R-SC, SC-R, R-OC	0.337
	R-SC, R-R, R-R	0.293	R-SC, R-SC, R-R	0.299	R-SC, R-OC, R-OC	0.325
			R-SC, SC-R, R-R	0.319	R-SC, OC-R, R-OC	0.334
			R-SC, R-OC, R-R	0.337	R-OC, R-OC, R-SC	0.291
					R-OC, OC-R, R-SC	0.288
			R-SC, OC-R, R-R	0.347	R-OC, R-SC, R-SC	0.348
					R-OC, SC-R, R-SC	0.379
2	R-R, R-OC, R-R	0.287	R-R, R-OC, R-OC	0.281	R-SC, R-SC, R-SC	0.288
			R-R, R-OC, OC-R	0.273	R-SC, SC-R, R-SC	0.295
			R-R, R-OC, R-SC	0.317	R-SC, R-OC, R-SC	0.352
					R-SC, OC-R, R-SC	0.364
			R-R, R-OC, SC-R	0.320	R-OC, R-OC, SC-R	0.274
	R-R, R-SC, R-R	0.294	R-R, R-SC, R-SC	0.308	R-OC, OC-R, SC-R	0.280
			R-R, R-SC, SC-R	0.328	R-OC, R-SC, SC-R	0.373
			R-R, R-SC, R-OC	0.283	R-OC, SC-R, SC-R	0.361
					R-SC, R-SC, SC-R	0.273
			R-R, R-SC, OC-R	0.290	R-SC, SC-R, SC-R	0.295
3	R-R, R-R, R-OC	0.238	R-OC, R-R, R-OC	0.279	R-SC, R-OC, SC-R	0.376
			OC-R, R-R, R-OC	0.270	R-SC, OC-R, SC-R	0.383
			R-SC, R-R, R-OC	0.282	R-OC, R-OC, OC-R	0.321
					R-OC, OC-R, OC-R	0.329
			SC-R, R-R, R-OC	0.287	R-OC, R-SC, OC-R	0.301
	R-R, R-R, R-SC	0.271	R-SC, R-R, R-SC	0.307	R-OC, SC-R, OC-R	0.331
			SC-R, R-R, R-SC	0.327	R-SC, R-SC, OC-R	0.329
			R-OC, R-R, R-SC	0.311	R-SC, SC-R, OC-R	0.337
					R-SC, R-OC, OC-R	0.304
			OC-R, R-R, R-SC	0.315	R-SC, OC-R, OC-R	0.315

Table S6.  $U_{\max}$  values at the end of an active conductor after various failures for the structure with the original and optimized parameter sets.

Option	After failure 1	$U_{\max}$ , V	After failure 2	$U_{\max}$ , V	After failure 3	$U_{\max}$ , V
1	R-OC, R-R, R-R	0.292, 0.277	R-OC, R-OC, R-R	0.280, 0.290	R-OC, R-OC, R-OC	0.273, 0.352
					R-OC, OC-R, R-OC	0.253, 0.332
			R-OC, OC-R, R-R	0.270, 0.287	R-OC, R-SC, R-OC	0.335, 0.320
			R-OC, R-SC, R-R	0.352, 0.333	R-OC, SC-R, R-OC	0.326, 0.308
					R-SC, R-SC, R-OC	0.340, 0.305
			R-OC, SC-R, R-R	0.370, 0.345	R-SC, SC-R, R-OC	0.374, 0.341
	R-SC, R-R, R-R	0.280, 0.293	R-SC, R-SC, R-R	0.328, 0.296	R-SC, R-OC, R-OC	0.351, 0.325
			R-SC, SC-R, R-R	0.346, 0.320	R-SC, OC-R, R-OC	0.360, 0.335
			R-SC, R-OC, R-R	0.367, 0.338	R-OC, R-OC, R-SC	0.333, 0.293
					R-OC, OC-R, R-SC	0.329, 0.292
			R-SC, OC-R, R-R	0.377, 0.350	R-OC, R-SC, R-SC	0.363, 0.349
2	R-R, R-OC, R-R	0.330, 0.283	R-R, R-OC, R-OC	0.291, 0.280	R-OC, SC-R, R-SC	0.397, 0.389
			R-R, R-OC, OC-R	0.289, 0.271	R-SC, R-SC, R-SC	0.318, 0.280
			R-R, R-OC, R-SC	0.359, 0.319	R-SC, SC-R, R-SC	0.321, 0.289
					R-SC, R-OC, R-SC	0.381, 0.355
			R-R, R-OC, SC-R	0.362, 0.325	R-SC, OC-R, R-SC	0.392, 0.369
	R-R, R-SC, R-R	0.312, 0.291	R-R, R-SC, R-SC	0.325, 0.308	R-OC, R-OC, SC-R	0.308, 0.274
			R-R, R-SC, SC-R	0.343, 0.334	R-OC, OC-R, SC-R	0.292, 0.284
			R-R, R-SC, R-OC	0.323, 0.279	R-OC, R-SC, SC-R	0.386, 0.381
					R-OC, SC-R, SC-R	0.385, 0.363
			R-R, R-SC, OC-R	0.341, 0.289	R-SC, R-SC, SC-R	0.308, 0.270
3	R-R, R-R, R-OC	0.269, 0.232	R-OC, R-R, R-OC	0.257, 0.279	R-SC, SC-R, SC-R	0.326, 0.289
			OC-R, R-R, R-OC	0.255, 0.269	R-SC, R-OC, SC-R	0.400, 0.387
			R-SC, R-R, R-OC	0.294, 0.282	R-SC, OC-R, SC-R	0.409, 0.393
					R-OC, R-OC, OC-R	0.245, 0.323
			SC-R, R-R, R-OC	0.307, 0.286	R-OC, OC-R, OC-R	0.238, 0.333
	R-R, R-R, R-SC	0.270, 0.272	R-SC, R-R, R-SC	0.291, 0.310	R-OC, R-SC, OC-R	0.308, 0.295
					R-OC, SC-R, OC-R	0.351, 0.331
			SC-R, R-R, R-SC	0.307, 0.337	R-SC, R-SC, OC-R	0.367, 0.329
			R-OC, R-R, R-SC	0.313, 0.312	R-SC, SC-R, OC-R	0.369, 0.341
					R-SC, R-OC, OC-R	0.321, 0.298
			OC-R, R-R, R-SC	0.32, 0.318	R-SC, OC-R, OC-R	0.332, 0.312