

Supplementary Materials:

Table S1. Mean maximum wind speed, Weibull shape and scale parameter, mean wind speed and standard deviation for each LA

	40 year mean of annual maxima (ms ⁻¹)	Std annual max (ms ⁻¹)	Weibull A (ms ⁻¹)	Weibull k	Mean wind speed (ms ⁻¹)	Std (ms ⁻¹)
1	28.58	2.75	10.34	2.17	9.16	4.43
2	28.42	2.67	10.30	2.19	9.12	4.37
3	28.69	2.97	10.36	2.15	9.17	4.48
4	28.69	2.97	10.36	2.15	9.17	4.48
5	28.73	2.80	10.36	2.14	9.17	4.50
6	28.11	2.54	10.19	2.20	9.02	4.31
7	28.12	2.57	10.18	2.21	9.01	4.28
8	27.07	2.86	9.66	2.13	8.55	4.20
9	27.01	2.31	9.65	2.15	8.55	4.17
10	26.85	2.27	9.64	2.14	8.54	4.19
11	25.89	1.88	9.06	2.13	8.02	3.96
12	26.11	2.12	9.16	2.12	8.11	4.01
13	26.64	2.18	9.30	2.12	8.24	4.07
14	26.59	2.90	9.38	2.07	8.30	4.18
15	26.33	3.33	9.20	2.09	8.15	4.09
16	27.79	3.89	9.41	2.07	8.34	4.22

Table S2: Maximum estimated U_{50} and 40 year observed maximum wind speed at each site (ms⁻¹)

	U_{ref}	GG	GW	GMM	GML	3param	Max 40 year obs
1	45.8	35.9	33.1	35.7	34.3	35.9	36.6
2	45.6	35.5	32.7	35.4	33.8	35.6	35.0
3	45.9	36.6	33.5	36.4	35.2	37.1	38.1
4	45.9	36.6	33.5	36.4	35.2	37.1	38.1
5	45.9	36.2	33.7	36.0	35.0	36.1	38.1
6	45.1	34.8	32.2	34.7	33.1	35.2	33.8
7	45.1	35.0	32.0	34.8	33.2	34.3	35.0
8	42.8	34.6	31.7	34.5	33.5	34.2	36.8
9	42.8	33.2	31.4	33.0	32.1	33.2	34.3
10	42.7	32.9	31.6	32.8	31.7	32.8	32.9
11	40.1	30.8	29.9	30.8	29.2	29.5	29.8
12	40.6	31.6	30.3	31.6	30.0	30.4	30.7
13	41.2	32.6	30.7	32.6	30.8	31.2	31.8
14	41.5	34.3	31.7	34.1	32.8	34.1	35.3
15	40.8	35.2	31.0	35.0	33.7	35.8	36.4
16	41.7	38.0	32.1	37.9	35.6	39.7	37.2