

1 List of all target and external variables

Table 1: Exhaustive list of all target and external variables

Parameter	Mean	Std	Skewness
Temperature 2m (°C) Scotland	6.54	5.28	0.18
Relative humidity 2m (%) Scotland	87.0	11.64	-1.28
Dew point 2m (°C) Scotland	4.37	4.84	-0.08
Apparent temperature (°C) Scotland	3.48	6.36	0.28
Rain (mm) Scotland	0.14	0.43	7.68
Pressure msl (hPa) Scotland	1011.32	13.49	-0.4
Cloud cover (%) Scotland	83.46	28.71	-1.71
Wind speed 10m (km/h) Scotland	13.01	6.69	0.56
Wind direction 10m (°) Scotland	202.53	91.4	-0.3
Is day in Scotland	0.52	0.5	-0.07
Shortwave radiation (W/m ²) Scotland	100.48	166.9	1.95
Direct radiation (W/m ²) Scotland	47.38	112.79	3.12
Temperature 2m (°C) St Fergus	9.01	4.73	0.07
Relative humidity 2m (%) St Fergus	81.92	11.0	-0.66
Dew point 2m (°C) St Fergus	5.95	4.78	-0.09
Apparent temperature (°C) St Fergus	5.77	5.99	0.2
Rain (mm) St Fergus	0.11	0.37	9.17
Pressure msl (hPa) St Fergus	1010.7	13.52	-0.42
Cloud cover (%) St Fergus	72.19	35.28	-0.91
Wind speed 10m (km/h) St Fergus	16.36	8.12	0.76
Wind direction 10m (°) St Fergus	208.5	86.44	-0.3
Is day in St Fergus	0.52	0.5	-0.07
Shortwave radiation (W/m ²) St Fergus	119.34	185.75	1.64
Direct radiation (W/m ²) St Fergus	63.79	127.3	2.44
Temperature 2m (°C) Nybro	9.01	6.42	0.06
Relative humidity 2m (%) Nybro	81.24	14.15	-1.01
Dew point 2m (°C) Nybro	5.68	5.84	-0.25
Apparent temperature (°C) Nybro	5.77	7.72	0.21
Rain (mm) Nybro	0.11	0.39	7.45
Pressure msl (hPa) Nybro	1012.82	11.47	-0.4
Cloud cover (%) Nybro	69.51	37.7	-0.78
Wind speed 10m (km/h) Nybro	16.66	7.94	0.65
Wind direction 10m (°) Nybro	200.57	87.58	-0.42
Is day in Nybro	0.52	0.5	-0.08
Shortwave radiation (W/m ²) Nybro	119.51	189.52	1.71
Direct radiation (W/m ²) Nybro	68.33	138.5	2.43
Temperature 2m (°C) Zeebrugge	11.51	5.82	0.12
Relative humidity 2m (%) Zeebrugge	78.64	12.51	-0.87
Dew point 2m (°C) Zeebrugge	7.7	5.3	-0.3
Apparent temperature (°C) Zeebrugge	8.49	7.32	0.27
Rain (mm) Zeebrugge	0.11	0.39	8.2
Pressure msl (hPa) Zeebrugge	1015.45	10.67	-0.5
Cloud cover (%) Zeebrugge	65.53	38.71	-0.59
Wind speed 10m (km/h) Zeebrugge	18.51	9.33	0.73
Wind direction 10m (°) Zeebrugge	191.08	95.36	-0.35
Is day in Zeebrugge	0.51	0.5	-0.06
Shortwave radiation (W/m ²) Zeebrugge	139.0	214.15	1.59
Direct radiation (W/m ²) Zeebrugge	85.35	162.06	2.15

Table 2: Exhaustive list of all target and external variables (continuation)

Parameter	Mean	Std	Skewness
Temperature 2m (°C) Belgium	10.89	6.76	0.17
Relative humidity 2m (%) Belgium	78.18	15.91	-0.88
Dew point 2m (°C) Belgium	6.81	5.51	-0.35
Apparent temperature (°C) Belgium	8.08	8.13	0.26
Rain (mm) Belgium	0.1	0.38	8.82
Pressure msl (hPa) Belgium	1016.14	10.11	-0.48
Cloud cover (%) Belgium	67.35	38.96	-0.7
Wind speed 10m (km/h) Belgium	15.69	8.04	0.85
Wind direction 10m (°) Belgium	191.03	89.71	-0.45
Is day in Belgium full	0.51	0.5	-0.04
Shortwave radiation (W/m ²) Belgium	135.11	208.31	1.61
Direct radiation (W/m ²) Belgium	79.83	154.89	2.25
Temperature 2m (°C) Dornum	10.54	5.87	0.14
Relative humidity 2m (%) Dornum	80.34	11.58	-0.71
Dew point 2m (°C) Dornum	7.12	5.58	-0.18
Apparent temperature (°C) Dornum	7.27	7.51	0.27
Rain (mm) Dornum	0.11	0.38	8.49
Pressure msl (hPa) Dornum	1014.33	10.92	-0.39
Cloud cover (%) Dornum	68.35	37.54	-0.72
Wind speed 10m (km/h) Dornum	19.24	9.4	0.75
Wind direction 10m (°) Dornum	197.24	94.05	-0.33
Is day in Dornum	0.51	0.5	-0.06
Shortwave radiation (W/m ²) Dornum	133.0	206.34	1.6
Direct radiation (W/m ²) Dornum	80.25	153.47	2.19
Temperature 2m (°C) Emden	10.66	6.16	0.17
Relative humidity 2m (%) Emden	80.1	12.79	-0.83
Dew point 2m (°C) Emden	7.13	5.56	-0.19
Apparent temperature (°C) Emden	7.68	7.69	0.29
Rain (mm) Emden	0.11	0.37	7.89
Pressure msl (hPa) Emden	1014.5	10.85	-0.39
Cloud cover (%) Emden	69.03	37.36	-0.76
Wind speed 10m (km/h) Emden	16.97	8.41	0.74
Wind direction 10m (°) Emden	196.52	93.21	-0.33
Is day in Emden	0.51	0.5	-0.05
Shortwave radiation (W/m ²) Emden	129.28	200.55	1.63
Direct radiation (W/m ²) Emden	75.0	146.36	2.29
Temperature 2m (°C) Germany	8.6	7.54	0.14
Relative humidity 2m (%) Germany	77.52	16.66	-0.85
Dew point 2m (°C) Germany	4.42	6.1	-0.23
Apparent temperature (°C) Germany	5.83	8.85	0.2
Rain (mm) Germany	0.08	0.32	11.05
Pressure msl (hPa) Germany	1016.47	9.59	-0.27
Cloud cover (%) Germany	69.9	37.66	-0.83
Wind speed 10m (km/h) Germany	11.79	6.11	0.82
Wind direction 10m (°) Germany	201.91	87.98	-0.39
Is day in Germany	0.51	0.5	-0.04
Shortwave radiation (W/m ²) Germany	133.75	207.06	1.6
Direct radiation (W/m ²) Germany	77.66	152.74	2.26

Table 3: Exhaustive list of all target and external variables (continuation)

Parameter	Mean	Std	Skewness
Temperature 2m (°C) Dunkerque	11.64	5.63	0.11
Relative humidity 2m (%) Dunkerque	78.9	12.21	-0.81
Dew point 2m (°C) Dunkerque	7.88	5.13	-0.35
Apparent temperature (°C) Dunkerque	8.71	7.03	0.25
Rain (mm) Dunkerque	0.1	0.38	9.5
Pressure msl (hPa) Dunkerque	1015.56	10.72	-0.54
Cloud cover (%) Dunkerque	64.7	38.89	-0.56
Wind speed 10m (km/h) Dunkerque	17.88	9.1	0.75
Wind direction 10m (°) Dunkerque	186.16	92.49	-0.34
Is day in Dunkerque	0.52	0.5	-0.06
Shortwave radiation (W/m ²) Dunkerque	140.79	215.04	1.56
Direct radiation (W/m ²) Dunkerque	86.99	162.62	2.1
Temperature 2m (°C) France	12.62	7.32	0.23
Relative humidity 2m (%) France	74.91	16.93	-0.74
Dew point 2m (°C) France	7.75	5.53	-0.29
Apparent temperature (°C) France	10.73	8.73	0.25
Rain (mm) France	0.1	0.41	10.61
Pressure msl (hPa) France	1017.67	8.53	-0.47
Cloud cover (%) France	62.89	40.37	-0.5
Wind speed 10m (km/h) France	11.12	5.58	0.98
Wind direction 10m (°) France	185.1	96.49	-0.24
Is day in France	0.51	0.5	-0.05
Shortwave radiation (W/m ²) France	151.18	227.65	1.52
Direct radiation (W/m ²) France	93.75	174.59	2.08
Temperature 2m (°C) Birmingham	10.29	5.91	0.2
Relative humidity 2m (%) Birmingham	80.23	14.05	-0.9
Dew point 2m (°C) Birmingham	6.73	4.85	-0.19
Apparent temperature (°C) Birmingham	7.21	7.04	0.32
Rain (mm) Birmingham	0.09	0.37	12.39
Pressure msl (hPa) Birmingham	1014.28	12.01	-0.51
Cloud cover (%) Birmingham	69.57	37.47	-0.79
Wind speed 10m (km/h) Birmingham	16.67	8.22	0.68
Wind direction 10m (°) Birmingham	197.72	91.57	-0.5
Is day in Birmingham	0.51	0.5	-0.06
Shortwave radiation (W/m ²) Birmingham	124.76	191.97	1.66
Direct radiation (W/m ²) Birmingham	68.22	136.56	2.49
Temperature 2m (°C) Easington	10.45	5.18	0.1
Relative humidity 2m (%) Easington	80.78	11.13	-0.78
Dew point 2m (°C) Easington	7.12	4.81	-0.14
Apparent temperature (°C) Easington	7.1	6.45	0.21
Rain (mm) Easington	0.08	0.33	8.36
Pressure msl (hPa) Easington	1013.5	12.33	-0.48
Cloud cover (%) Easington	67.75	37.96	-0.71
Wind speed 10m (km/h) Easington	19.17	9.29	0.62
Wind direction 10m (°) Easington	194.39	89.95	-0.43
Is day in Easington	0.51	0.5	-0.06
Shortwave radiation (W/m ²) Easington	133.59	202.92	1.57
Direct radiation (W/m ²) Easington	75.57	145.9	2.29

Table 4: Exhaustive list of all target and external variables (continuation)

Parameter	Mean	Std	Skewness
DK	53.48	50.75	1.85
DE	52.63	50.72	1.88
FR	46.3	39.13	1.46
BE	47.85	41.85	1.62
UK	42.53	35.14	1.72
Mean	48.56	42.86	1.66
DK rel	1.07	0.09	2.42
DE rel	1.04	0.09	2.88
FR rel	0.97	0.05	-2.86
BE rel	0.99	0.05	-2.32
UK rel	0.93	0.14	-2.26
DK rel pct	7.03	9.25	2.42
DE rel pct	4.22	8.99	2.88
FR rel pct	-3.15	5.44	-2.86
BE rel pct	-1.44	5.41	-2.32
UK rel pct	-6.66	13.64	-2.26
DK is best	0.65	0.47	-0.64
DE is best	0.13	0.33	2.19
FR is best	0.01	0.08	11.5
BE is best	0.01	0.1	9.65
UK is best	0.2	0.39	1.5
Volume rate Easington hourly	51.55	22.55	-0.73
Volume rate St Fergus hourly	5.25	7.08	2.38
Volume rate Denmark hourly	9.19	10.22	0.73
Volume rate Belgium hourly	42.01	3.94	-5.18
Volume rate France hourly	44.6	10.13	-2.04
Volume rate Germany hourly	138.15	15.37	-1.86
Year	21.78	1.31	0.12
Hour sin	0.0	0.71	-0.0
Hour cos	-0.0	0.71	0.0
Dow sin	-0.0	0.71	0.0
Dow cos	-0.0	0.71	0.0
Month sin	0.06	0.7	-0.15
Month cos	-0.02	0.71	0.04
Is holiday	0.04	0.18	5.05
Nominations Easington [MSM3]	51.21	22.82	-0.78
Nominations St. Fergus [MSM3]	4.86	7.12	2.3
Nominations Denmark [MSM3]	8.06	10.96	0.72
Nominations Belgium [MSM3]	41.89	4.07	-5.7
Nominations France [MSM3]	44.48	10.15	-2.2
Nominations Germany [MSM3]	138.35	15.21	-1.88