

# 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 daytime in Scotland	0.52	0.5	-0.07
Shortwave radiation (W/m <sup>2</sup> ) Scotland	100.48	166.9	1.95
Direct radiation (W/m <sup>2</sup> ) 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 daytime in St Fergus	0.52	0.5	-0.07
Shortwave radiation (W/m <sup>2</sup> ) St Fergus	119.34	185.75	1.64
Direct radiation (W/m <sup>2</sup> ) 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 daytime in Nybro	0.52	0.5	-0.08
Shortwave radiation (W/m <sup>2</sup> ) Nybro	119.51	189.52	1.71
Direct radiation (W/m <sup>2</sup> ) 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 daytime in Zeebrugge	0.51	0.5	-0.06
Shortwave radiation (W/m <sup>2</sup> ) Zeebrugge	139.0	214.15	1.59
Direct radiation (W/m <sup>2</sup> ) Zeebrugge	85.35	162.06	2.15

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

<b>Parameter</b>	<b>Mean</b>	<b>Std</b>	<b>Skewness</b>
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 daytime in Belgium full	0.51	0.5	-0.04
Shortwave radiation (W/m <sup>2</sup> ) Belgium	135.11	208.31	1.61
Direct radiation (W/m <sup>2</sup> ) 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 daytime in Dornum	0.51	0.5	-0.06
Shortwave radiation (W/m <sup>2</sup> ) Dornum	133.0	206.34	1.6
Direct radiation (W/m <sup>2</sup> ) 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 daytime in Emden	0.51	0.5	-0.05
Shortwave radiation (W/m <sup>2</sup> ) Emden	129.28	200.55	1.63
Direct radiation (W/m <sup>2</sup> ) 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 daytime in Germany	0.51	0.5	-0.04
Shortwave radiation (W/m <sup>2</sup> ) Germany	133.75	207.06	1.6
Direct radiation (W/m <sup>2</sup> ) Germany	77.66	152.74	2.26

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

<b>Parameter</b>	<b>Mean</b>	<b>Std</b>	<b>Skewness</b>
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 daytime in Dunkerque	0.52	0.5	-0.06
Shortwave radiation (W/m <sup>2</sup> ) Dunkerque	140.79	215.04	1.56
Direct radiation (W/m <sup>2</sup> ) 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 daytime in France	0.51	0.5	-0.05
Shortwave radiation (W/m <sup>2</sup> ) France	151.18	227.65	1.52
Direct radiation (W/m <sup>2</sup> ) 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 daytime in Birmingham	0.51	0.5	-0.06
Shortwave radiation (W/m <sup>2</sup> ) Birmingham	124.76	191.97	1.66
Direct radiation (W/m <sup>2</sup> ) 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 daytime in Easington	0.51	0.5	-0.06
Shortwave radiation (W/m <sup>2</sup> ) Easington	133.59	202.92	1.57
Direct radiation (W/m <sup>2</sup> ) Easington	75.57	145.9	2.29

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

<b>Parameter</b>	<b>Mean</b>	<b>Std</b>	<b>Skewness</b>
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