

KPS REPORT ITERATION 1 - 19TH MAY 2015  
(RPS REPORT ITERATION 1A)

Table 3 - Details of the land cover classes (Memorandum dated 29/04/2015) and the model calculation

Absolute Noise Limit 40 dB

Location	Spatial extent (scale)		Height		Matching Minimum Wind Speed at Tip Height (m/s)	Setback from sensitive properties (residences, schools)	Area available (sq km) matching minimum wind speed	Remaining Area (sq km) following application of 40dB limit	Percent of ROI land Area	Capacity available (MW)	Assumed Capacity Factor for Tip Heights	Capacity Output Potential (GWh)
	Existing guidelines	New	Existing guidelines	New								
Mountain Moorland and hills	> 150m		Existing guidelines	New	7.75							
	Tend towards large	30 turbines maximum	Any height	150m		Min 500m, multiplier of 5 (750m max)	293	128.01	0.18%	1,280.10	33.33%	3,176.89
Transitional marginal land	< 150m		Medium	125m	8	Min 500m, multiplier of 6 (750m max)	20	10.46	0.01%	104.60	30.00%	233.66
	Tend towards small	10	Medium and short	125m	8	Min 500m, multiplier of 7 (875m max)	0.3	0.10	0.00%	1.00	30.00%	2.23
Flat farm land		10	Medium	125m	8	Min 500m, multiplier of 7 (875m max)	70.8	0.43	0.00%	4.30	30.00%	9.61
Flat peat land		50 turbines maximum	Tall	170m	7.75	Min 500m, multiplier of 5 (850m max)	8.2	3.66	0.01%	36.60	33.33%	90.83
Urban/Industrial	Urban town & villages	2	Short	100m	8	Min 1km from town & villages	0	0.00	0.00%	0.00	30.00%	0.00
	Industrial	1 off-turbine	Short	100m	8	Min 600m	0	0.00	0.00%	0.00	30.00%	0.00
Lakeside		10	-	100m	8	Min 500m, multiplier of 8 (800m max)	0	0.00	0.00%	0.00	30.00%	0.00
Coastal		10	Tall may be acceptable	100m	8	Min 500m, multiplier of 8 (800m max)	6.7	4.44	0.01%	44.40	30.00%	99.18
							399.00	147.30		1,471.00		3,612.40

Republic of Ireland Land Area (km <sup>2</sup> )	70,273
Capacity Intensity (MW per km <sup>2</sup> )	10
Losses	15%
Hours in the Year	8,760