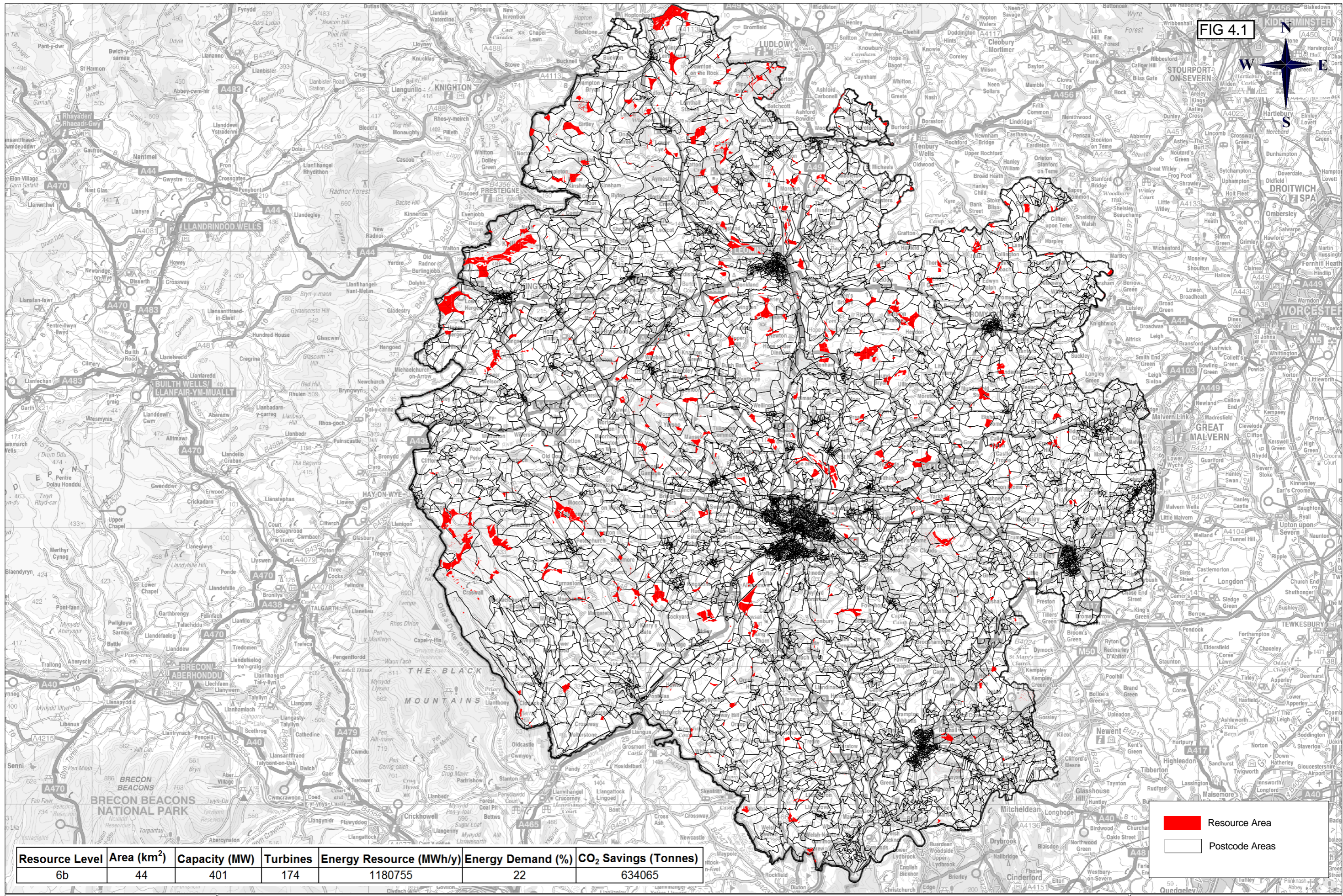


FIG 4.1



Resource Level	Area (km ²)	Capacity (MW)	Turbines	Energy Resource (MWh/y)	Energy Demand (%)	CO ₂ Savings (Tonnes)
6b	44	401	174	1180755	22	634065

Resource Area

Postcode Areas

Scale: 1: 250 000 @ A3

Client: **wardell armstrong** and **Herefordshire Council**

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Drawing Notes:

Level 6b gives practically viable wind resource following removal of all National Parks, Areas of Outstanding Natural Beauty, and Heritage Coast referred to as landscape constraints. The constraints used at levels 3, 4, 5, and 6a have also been applied. Wind resource energy values have been based on the following benchmarks:
 A wind speed to log law calculation was used to estimate the wind at 85m above ground level from the 45m reference height in the NOABL wind speed database. A ground roughness value of 0.03 was used the calculation (x 1.087)
 Installed capacity estimated based on area. This was set at 9MW/km²
 Turbine numbers were calculated based on total installed capacity using a 2.3MW Class 2 Enercon
 Total energy output was then derived from the number of turbines and the energy curve for a E82 Enercon.
 Energy output for each turbine varied based on wind speed 85m above ground level which was linked back with the turbine energy curve
 The thematic map (colouring) represents potential energy production density (GWh/km²)
 The %s shown in the table represent the contribution to Herefordshire's Electrical and Total energy demand in 2007 (DECC)
 The carbon saving was calculated based on 0.537kg of carbon / kilowatt hour of electricity produced (DEFRA)

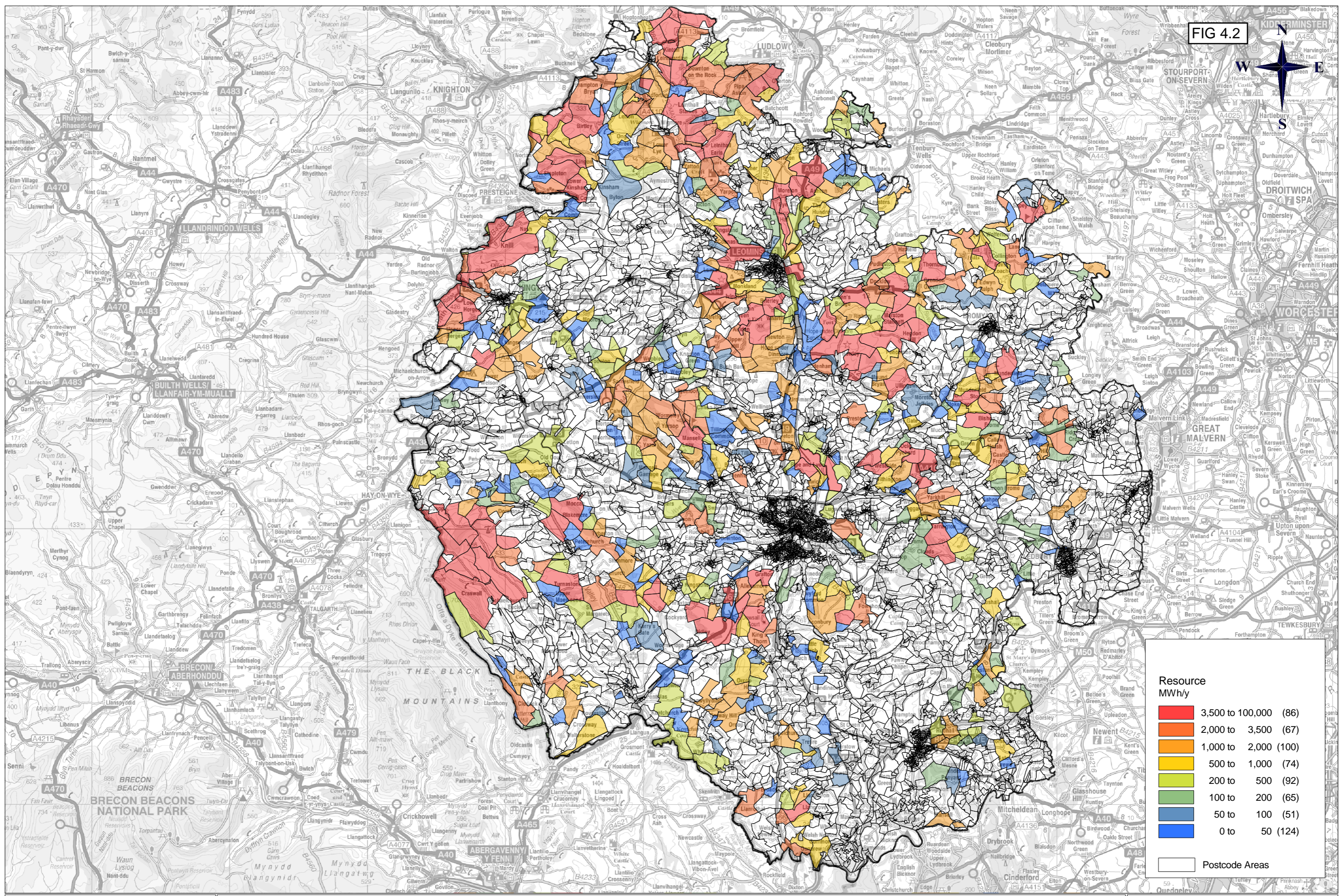
Figure 4.1 Herefordshire Renewable Energy Study
Large Commercial Scale Wind
Resource Area - Level 6b (Landscape Designations)

Project Ref: 42-0347 Dwg. Ref: Figure 4.1

Drawn: S. Clarke Date: 21 JUL 2010

Checked: A. Allen Date: 21 JUL 2010

FIG 4.2



Resource MWh/y	
	3,500 to 100,000 (86)
	2,000 to 3,500 (67)
	1,000 to 2,000 (100)
	500 to 1,000 (74)
	200 to 500 (92)
	100 to 200 (65)
	50 to 100 (51)
	0 to 50 (124)
	Postcode Areas

Scale: 1:250 000 @ A3

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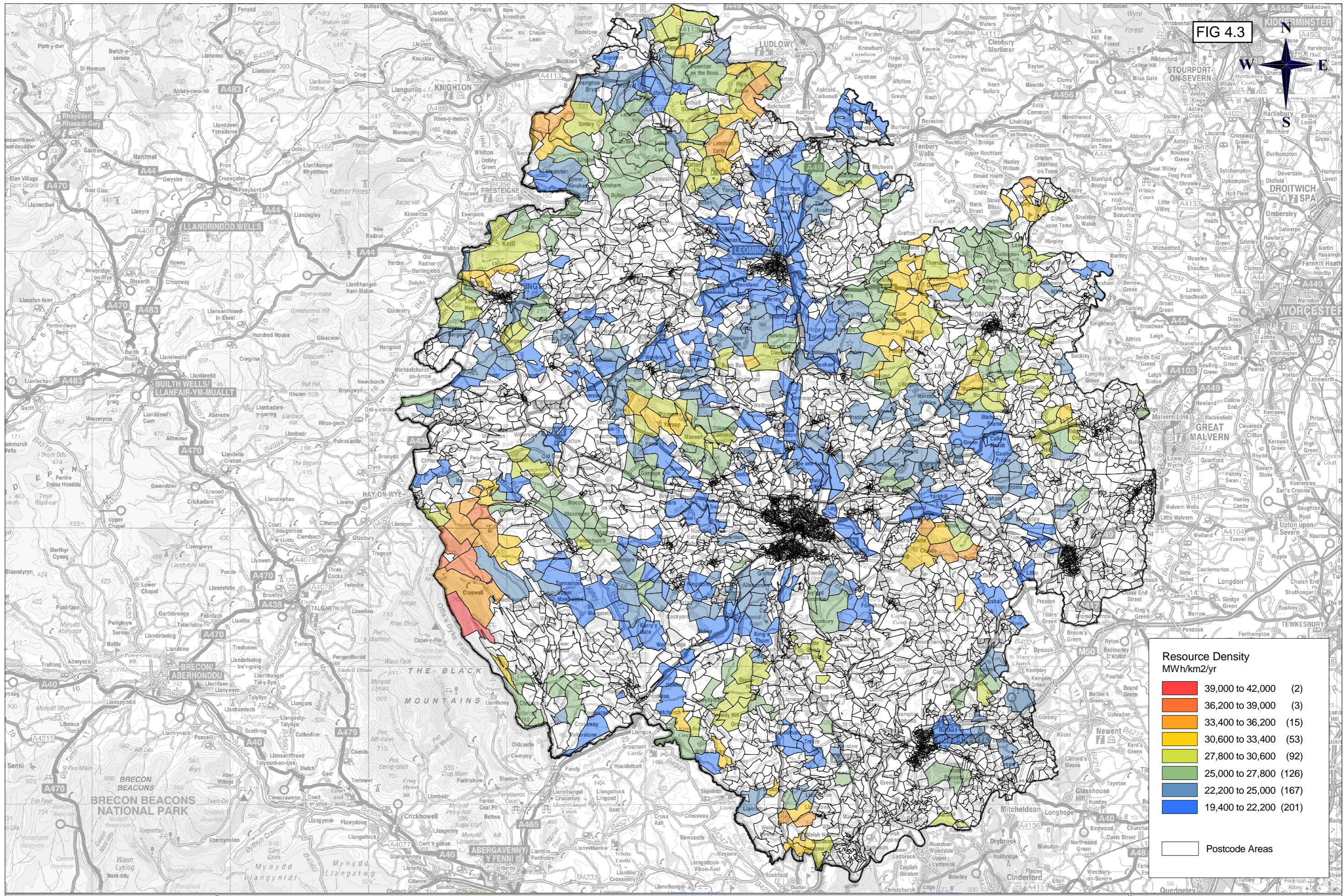
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BNQ Ref: 348600E : 245900N Map Ref: Landranger Map:149 - OS 100K Ref: SO

Figure 4.2 Herefordshire Renewable Energy Study
Large Commercial Scale Wind
Postcode Resource - Level 6b

Project Ref: 42-0347	Dwg. Ref: Figure 4.2
Drawn: S. Clarke	Date: 21 JUL 2010
Checked: A. Allen	Date: 21 JUL 2010



Resource Density
MWh/km²/yr

Red	39,000 to 42,000	(2)
Orange	36,200 to 39,000	(3)
Yellow-Orange	33,400 to 36,200	(15)
Yellow	30,600 to 33,400	(53)
Light Green	27,800 to 30,600	(92)
Green	25,000 to 27,800	(126)
Blue-Green	22,200 to 25,000	(167)
Blue	19,400 to 22,200	(201)
White	Postcode Areas	

Scale: 1:250 000 @ A3

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Drawing Notes:

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Client: Herefordshire Council

Project Ref: 348600E : 245900N Map Ref: Landranger Map:149 - OS 100K Ref: SO

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Figure 4.3 Herefordshire Renewable Energy Study
Large Commercial Scale Wind
Postcode Resource Density - Level 6b

Project Ref: 42-0347	Dwg. Ref: Figure 4.3
Drawn: S. Clarke	Date: 21 JUL 2010
Checked: A. Allen	Date: 21 JUL 2010