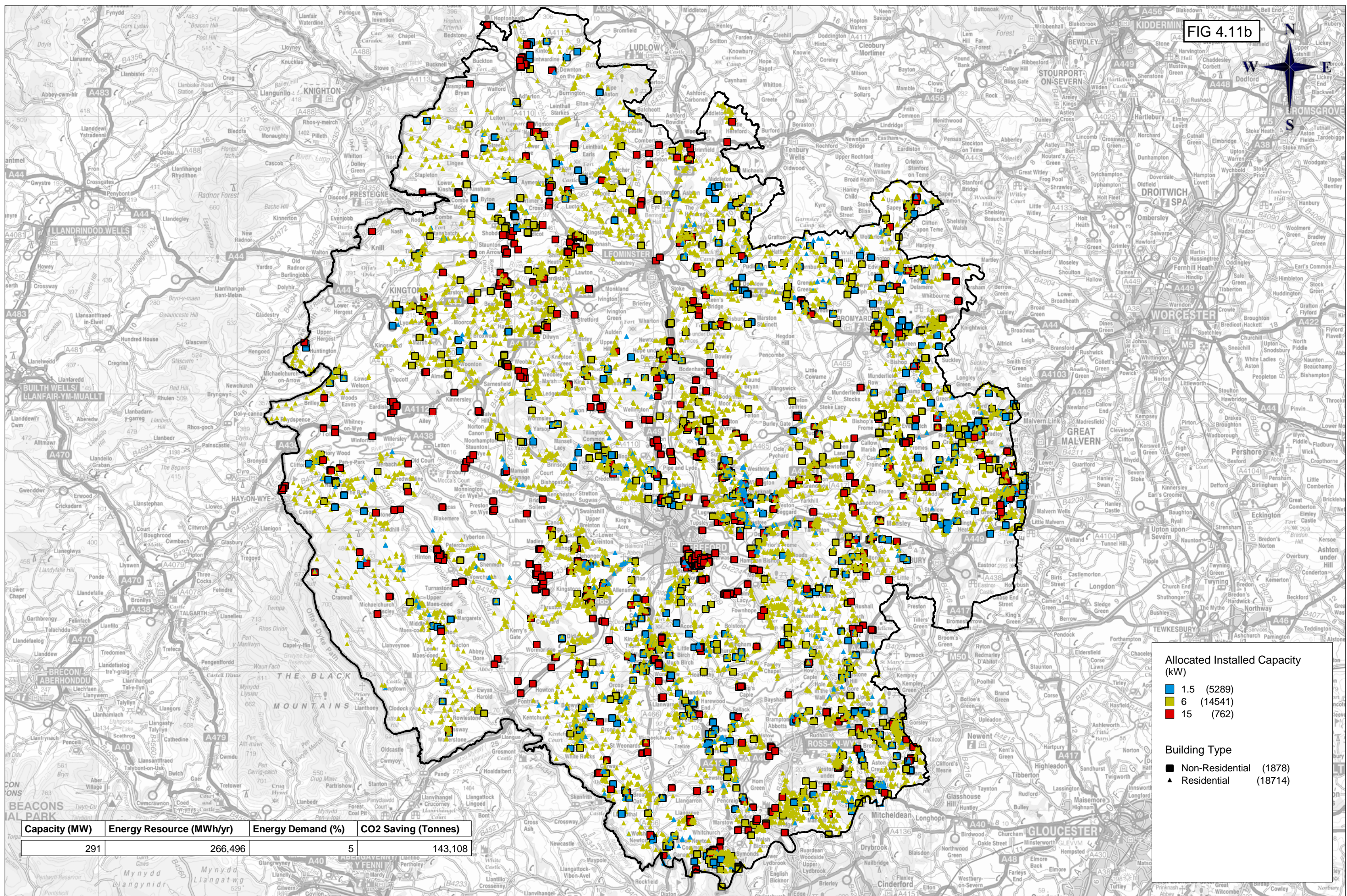


FIG 4.11b



Allocated Installed Capacity (kW)

- 1.5 (5289)
- ▲ 6 (14541)
- 15 (762)

Building Type

- Non-Residential (1878)
- ▲ Residential (18714)

Scale: 1:250 000 @ A3

Wardell Armstrong International
Wheat Jane, Balduh, Truro, Cornwall, TR3 6EH
Tel: +44 (0) 1872 560738
Fax: +44 (0) 1872 561079
wai@wardell-armstrong.com

Drawings Notes:

Wind resource energy values have been based on the following benchmarks:
 The wind speeds used were taken from the NOABL database at reference height of 10m and 25m. These were adjusted using a wind speed up calculation to estimate the wind speed at 6m
 Installed capacity was estimated based on the assumption that domestic, commercial and industrial buildings could support a 1.5kW, 6kW, 15kW turbine dependent on building classification (See Appendix for building classification and representative turbine used)
 Individual buildings were identified using the LLPG database. Addresses with the same coordinates were counted as single buildings.
 Total energy output was derived by matching the wind speed for each turbine with either the Swift 1.5kW, Proven 6kW or Proven 15kW energy curve. Areas with wind speeds below 4.5m/s were excluded from the study
 Energy output for each turbine varied based on the wind speed at the relevant hub height above ground level which was linked back with the turbine energy curve
 The thematic map (colouring) represents the allocated installed capacity (kW) for each building
 The % shown on the map represent the contribution to Herefordshire's electricity demand in 2007 -1037.8450553 GWh/yr and total energy demand in 2007 - 5176.62131103582 GWh/yr (DECC)
 The carbon saving was calculated based on 0.537kg of carbon / kilowatt hour of electricity produced (DEFRA).

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

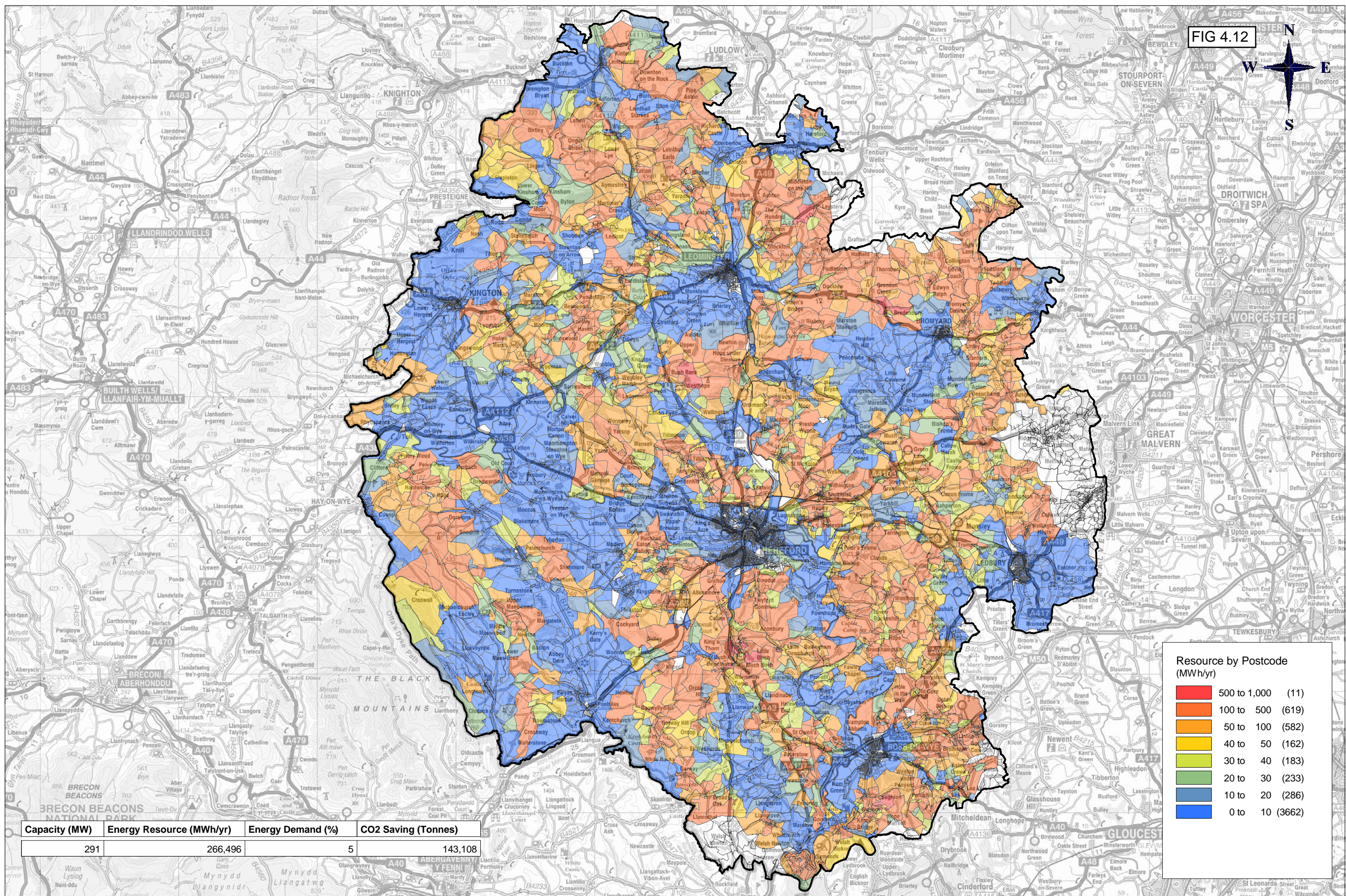
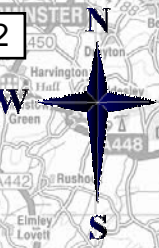
Figure 4.11b
 Herefordshire Renewable Energy Study
 Small Scale Wind
 Capacity by Building Type

Project Ref: 42-0347
 Drawn: C. Bines
 Checked: S. Clarke

Dwg. Ref: SSWD_CAP_R_420347
 Date: 28 JUL 2010
 Date: 28 JUL 2010

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FIG 4.12



Capacity (MW)	Energy Resource (MWh/yr)	Energy Demand (%)	CO2 Saving (Tonnes)
291	266,496	5	143,108

Resource by Postcode (MWh/yr)

500 to 1,000	(11)
100 to 500	(619)
50 to 100	(582)
40 to 50	(162)
30 to 40	(183)
20 to 30	(233)
10 to 20	(286)
0 to 10	(3662)

Scale: 1:250,000 @ A3

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

Wardell Armstrong International
Wheat Jane, Balduh, Truro, Cornwall, TR3 6EH
Tel: +44 (0) 1872 560738
Fax: +44 (0) 1872 561079
w@wardell-armstrong.com

Figure 4.12: Herefordshire Renewable Energy Study - Small Scale Wind Resource by Postcode

Wind resource energy values have been based on the following benchmarks:
 The wind speeds used were taken from the NOABL database at reference height of 10m and 25m. These were adjusted using a wind speed up calculation to estimate the wind speed at 6m
 Installed capacity was estimated based on the assumption that domestic, commercial and industrial buildings could support a 1.5kW, 6kW, 15kW turbine dependent on building classification (See Appendix for building classification and representative turbine used)
 Individual buildings were identified using the LLPG database. Addresses with the same coordinates were counted as single buildings.
 Total energy output was derived by matching the wind speed for each turbine with either the Swift 1.5kW, Proven 6kW or Proven 15kW energy curve. Areas with wind speeds below 4.5m/s were excluded from the study
 Energy output for each turbine varied based on the wind speed at the relevant hub height above ground level which was linked back with the turbine energy curve
 The thematic map (colouring) represents the potential energy production (MWh/yr) or energy resource density (MWh/km²/yr)
 The % shown on the map represent the contribution to Herefordshire's electricity demand in 2007 - 1037.8450553 GWh/yr and total energy demand in 2007 - 5176.62131103582 GWh/y (DECC)
 The carbon saving was calculated based on 0.537kg of carbon / kilowatt hour of electricity produced (DEFRA)

Drawings Notes:
 Registered Office: Sir Henry Doulton, Forge Lane, Etruria, Stoke-on-Trent, ST1 5BD, United Kingdom
 Map Ref: Landranger Map:149 - OS 100K Ref: SO

Project Ref: 42-0347
 Drawn: C. Bines
 Checked: S. Clarke

Dwg. Ref: SSWD_PC_R_420347
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