



**Table A2: Existing and Planned Large Scale Plant RLC Capacity and Generation for Each Council**

| Council                                               | Site                                         | Type                              | Capacity (MWe) | Load Factor | Estimated Actual Generation (MW) | Approximate date of first power generation | Council Generation (wind only) (MW) | Council Generation (MW) |
|-------------------------------------------------------|----------------------------------------------|-----------------------------------|----------------|-------------|----------------------------------|--------------------------------------------|-------------------------------------|-------------------------|
| Burnley                                               | Hameldon Hill                                | Wind                              | 6              | 0.27        | 1.62                             | Feb-07                                     |                                     |                         |
|                                                       | Coal Clough                                  | Wind                              | 9.6            | 0.27        | 2.592                            | Dec-92                                     | 4.212                               |                         |
|                                                       | Queens Park Energy                           | Landfill gas                      | 1.85           | 0.64        | 1.184                            | Unknown                                    |                                     | 5.396                   |
| Calderdale                                            | Ovenden Moor                                 | Wind                              | 9.2            | 0.27        | 2.484                            | Jun-93                                     |                                     |                         |
|                                                       | Crook Hill (in Calderdale)*                  | Wind                              | 15             | 0.27        | 4.05                             | Consented                                  | 6.534                               |                         |
|                                                       | Atlas Power                                  | Landfill Gas                      | 1.136          | 0.64        | 0.72704                          | Jul-07                                     |                                     | 7.26104                 |
| Kirklees                                              | Syngenta CHP Plant                           | Natural Gas CHP                   | 16             | 0.64        | 10.24                            | Unknown                                    |                                     |                         |
|                                                       | Huddersfield Incinerator                     | Municipal Solid Waste Incinerator | 10             | 0.85        | 8.5                              | Dec-89                                     |                                     |                         |
|                                                       | Honley Wood                                  | Landfill Gas                      | 1              | 0.64        | 0.64                             | 01/01/2003                                 |                                     |                         |
|                                                       | Mitchel Laithes STW                          | Animal Slurry                     | 0.66           | 0.85        | 0.561                            | Unknown                                    |                                     |                         |
|                                                       | Emley AD                                     | Anaerobic Digestion               | 0.3            | 0.85        | 0.255                            | 01/01/2009                                 |                                     | 20.196                  |
| Pendle                                                | Burnley CHP at Burnley                       | Sewage gas                        | 0.25           | 0.4         | 0.1                              | Unknown                                    |                                     | 0.1                     |
| Rossendale                                            | Scout Moor (in Rossendale)                   | Wind                              | 27.50          | 0.27        | 7.43                             | Sep-08                                     |                                     |                         |
|                                                       | Reaps Moss**                                 | Wind                              | 9              | 0.27        | 2.43                             | Consented                                  | 9.86                                |                         |
|                                                       | Rossendale Power Hornccliffe Quarry Landfill | Landfill gas                      | 1.44           | 0.64        | 0.91904                          | Unknown                                    |                                     | 10.77                   |
| *Includes 5 of the 12 Turbines planned for Crook Hill |                                              |                                   |                |             |                                  |                                            |                                     |                         |
| **Including all 3 turbines planned for Reaps Moss     |                                              |                                   |                |             |                                  |                                            |                                     |                         |

**Table A3: Total Theoretical RLC Electricity Maximum Capacity (MW)**

| Assessment        | Commercial Scale Wind Energy                          | Small Scale Wind Energy                                    | Energy Crops                                                | Municipal Anaerobic Digestion                  | Waste Wood       | Farm Anaerobic Digestion             | Woodfuel                               | Potential for Solar Energy (PV) | Hydropower   | SUM            | SUM Excluding Commercial Wind |
|-------------------|-------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------|------------------|--------------------------------------|----------------------------------------|---------------------------------|--------------|----------------|-------------------------------|
| Units/description | Potential Maximum Installed Capacity (see Table 4-13) | Potential Maximum installed capacity (MW) (see Table 4-17) | 100 % land Conversion Energy Produced (MW) (see Table 4-19) | Potential Energy Source (MW) (see Table 4-21)* | (see Table 4-22) | Electricity only (MW) (see Table A1) | Electricity Only (MW) (see Table 4-25) | (See Table 4-31)                | (Table 4-39) |                |                               |
| Burnley           | 147.96                                                | 5.01                                                       | 1.88                                                        | 0.27                                           | 1.14             | 0.40                                 | 0.07                                   | 42.00                           | 0.95         | 199.69         | 51.73                         |
| Calderdale        | 263.97                                                | 22.04                                                      | 3.81                                                        | 0.71                                           | 2.46             | 0.93                                 | 0.39                                   | 94.00                           | 2.33         | 390.65         | 126.68                        |
| Kirklees          | 119.61                                                | 26.73                                                      | 13.70                                                       | 1.53                                           | 4.96             | 1.26                                 | 0.95                                   | 185.00                          | 1.58         | 355.31         | 235.70                        |
| Pendle            | 197.19                                                | 7.11                                                       | 1.60                                                        | 0.28                                           | 1.14             | 0.90                                 | 0.13                                   | 40.00                           | 1.01         | 249.36         | 52.17                         |
| Rossendale        | 259.29                                                | 5.68                                                       | 0.00                                                        | 0.21                                           | 0.84             | 0.44                                 | 0.11                                   | 36.00                           | 8.88         | 311.45         | 52.16                         |
| <b>Total</b>      | <b>988.02</b>                                         | <b>66.58</b>                                               | <b>20.99</b>                                                | <b>3.00</b>                                    | <b>10.55</b>     | <b>3.94</b>                          | <b>1.65</b>                            | <b>397.00</b>                   | <b>14.74</b> | <b>1506.46</b> | <b>518.44</b>                 |

**Table A4: Total Theoretical RLC Heating Maximum Capacity (MW)**

| -            | Energy Crops                                           | Waste Wood       | Farm Anaerobic Digestion | Woodfuel         | Solar Energy     | Potential for Domestic and commercial Ground Source Heating | .              |
|--------------|--------------------------------------------------------|------------------|--------------------------|------------------|------------------|-------------------------------------------------------------|----------------|
| Authority    | 100% of Grade Three Agricultural Land (see Table 4-19) | (see Table 4-22) | (see Table A1)           | (see Table 4-25) | (see Table 4-32) | Total Conservative Uptake (MW) (See Table 4-38)             | SUM            |
| Burnley      | 6.02                                                   | 2.04             | 0.59                     | 0.25             | 35.00            | 68.83                                                       | 112.73         |
| Calderdale   | 12.19                                                  | 4.38             | 1.37                     | 1.29             | 77.00            | 177.54                                                      | 273.78         |
| Kirklees     | 43.84                                                  | 8.85             | 1.85                     | 3.15             | 156.00           | 333.31                                                      | 547.00         |
| Pendle       | 5.12                                                   | 2.03             | 1.33                     | 0.44             | 34.00            | 61.99                                                       | 104.91         |
| Rossendale   | 0.00                                                   | 1.49             | 0.65                     | 0.36             | 31.00            | 69.02                                                       | 102.52         |
| <b>Total</b> | <b>67.17</b>                                           | <b>18.79</b>     | <b>5.79</b>              | <b>5.49</b>      | <b>333.00</b>    | <b>710.70</b>                                               | <b>1140.94</b> |

**Table A5: Total Pragmatic RLC Electricity Capacity (MW)**

| -            | Commercial Scale Wind Energy                            | Small Scale Wind Energy                                      | Energy Crops                                              | Anaerobic Digestion                            | Waste Wood       | Farm Anaerobic Digestion             | Woodfuel                               | Potential for Solar Energy (PV) | Hydropower                         |
|--------------|---------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------|------------------|--------------------------------------|----------------------------------------|---------------------------------|------------------------------------|
| Authority    | Potential Pragmatic Installed Capacity (see table 4-14) | Potential Pragmatic installed capacity (MW) (see Table 4-17) | 5 % land Conversion Energy Produced (MW) (see Table 4-19) | Potential Energy Source (MW) (see Table 4-21)* | (see Table 4-22) | Electricity only (MW) (see Table A1) | Electricity Only (MW) (see Table 4-25) | (See Table 4-31)                | 16% are win-win sites (Table 4-39) |
| Burnley      | 106.86                                                  | 5.01                                                         | 0.09                                                      | 0.27                                           | 0.60             | 0.06                                 | 0.07                                   | 27.00                           | 0.15                               |
| Calderdale   | 190.65                                                  | 22.04                                                        | 0.19                                                      | 0.71                                           | 1.20             | 0.14                                 | 0.39                                   | 61.00                           | 0.37                               |
| Kirklees     | 86.39                                                   | 26.73                                                        | 0.68                                                      | 0.00                                           | 2.50             | 0.19                                 | 0.95                                   | 117.00                          | 0.25                               |
| Pendle       | 142.42                                                  | 7.11                                                         | 0.08                                                      | 0.28                                           | 0.60             | 0.14                                 | 0.13                                   | 26.00                           | 0.16                               |
| Rossendale   | 187.27                                                  | 5.68                                                         | 0.00                                                      | 0.21                                           | 0.40             | 0.07                                 | 0.11                                   | 23.00                           | 1.42                               |
| <b>Total</b> | <b>713.59</b>                                           | <b>66.58</b>                                                 | <b>1.04</b>                                               | <b>1.47</b>                                    | <b>5.30</b>      | <b>0.59</b>                          | <b>1.65</b>                            | <b>254.00</b>                   | <b>2.36</b>                        |

\*Waste Feedstock for Kirklees is assumed to be already utilised by the incinerator

**Table A6: Total Pragmatic RLC Heating Capacity (MW)**

| -            | Energy Crops                                         | Waste Wood       | Farm Anaerobic Digestion | Woodfuel         | Solar Energy     | Potential for Domestic and commercial Ground Source Heating (low figure) | .             |
|--------------|------------------------------------------------------|------------------|--------------------------|------------------|------------------|--------------------------------------------------------------------------|---------------|
| Authority    | 5% of Grade Three Agricultural Land (see Table 4-19) | (see Table 4-22) | (see Table A1)           | (see Table 4-25) | (see Table 4-32) | Total Conservative Uptake (MW) (See Table 4-38)                          | SUM (MW)      |
| Burnley      | 0.29                                                 | 1.02             | 0.09                     | 0.25             | 20.00            | 64.00                                                                    | 85.65         |
| Calderdale   | 0.61                                                 | 2.19             | 0.21                     | 1.29             | 44.00            | 154.00                                                                   | 202.29        |
| Kirklees     | 2.18                                                 | 4.42             | 0.28                     | 3.15             | 89.00            | 292.00                                                                   | 391.03        |
| Pendle       | 0.26                                                 | 1.02             | 0.20                     | 0.44             | 19.00            | 53.00                                                                    | 73.91         |
| Rossendale   |                                                      | 0.75             | 0.10                     | 0.36             | 18.00            | 64.00                                                                    | 83.20         |
| <b>Total</b> | <b>3.33</b>                                          | <b>9.40</b>      | <b>0.87</b>              | <b>5.49</b>      | <b>190.00</b>    | <b>627.00</b>                                                            | <b>836.08</b> |

Note - All units in Appendix A are in MW unless otherwise stated

**Table A7: Total Theoretical RLC Electricity Maximum Generation (MW)**

| Assessment        | Commercial Scale Wind Energy         | Small Scale Wind Energy                   | Energy Crops                          | Municipal Anaerobic Digestion | Waste Wood                                           | Farm Anaerobic Digestion | Woodfuel              | Potential for Solar Energy (PV)               | Hydropower            | SUM           | SUM Excluding Wind |
|-------------------|--------------------------------------|-------------------------------------------|---------------------------------------|-------------------------------|------------------------------------------------------|--------------------------|-----------------------|-----------------------------------------------|-----------------------|---------------|--------------------|
| Units/descriptive | Potential Maximum Installed Capacity | Potential Maximum installed capacity (MW) | 100% of Grade Three Agricultural Land | Potential Energy Source (MWe) | Theoretical Maximum Capacity (MW) (Electricity Only) | Electricity only (MW)    | Electricity Only (MW) | Total generation (commercial and domestic) MW | Electricity Only (MW) |               |                    |
| Burnley           | 39.95                                | 0.50                                      | 1.60                                  | 0.23                          | 0.97                                                 | 0.34                     | 0.06                  | 3.36                                          | 0.43                  | 47.44         | 6.99               |
| Calderdale        | 71.27                                | 2.20                                      | 3.24                                  | 0.60                          | 2.09                                                 | 0.79                     | 0.33                  | 7.52                                          | 1.05                  | 89.10         | 15.63              |
| Kirklees          | 32.29                                | 2.67                                      | 11.65                                 | 1.30                          | 4.22                                                 | 1.07                     | 0.81                  | 14.80                                         | 0.71                  | 69.52         | 34.55              |
| Pendle            | 53.24                                | 0.71                                      | 1.36                                  | 0.24                          | 0.97                                                 | 0.77                     | 0.11                  | 3.20                                          | 0.45                  | 61.05         | 7.10               |
| Rossendale        | 70.01                                | 0.57                                      | 0.00                                  | 0.18                          | 0.71                                                 | 0.37                     | 0.09                  | 2.88                                          | 4.00                  | 78.81         | 8.24               |
| <b>Total</b>      | <b>266.77</b>                        | <b>6.66</b>                               | <b>17.84</b>                          | <b>2.55</b>                   | <b>8.96</b>                                          | <b>3.34</b>              | <b>1.40</b>           | <b>31.76</b>                                  | <b>6.63</b>           | <b>345.92</b> | <b>72.50</b>       |

**Table A8: Total Theoretical RLC Heating Maximum Generation (MW)**

| -            | Energy Crops                          | Waste Wood   | Farm Anaerobic Digestion | Woodfuel    | Solar Energy | Potential for Domestic and commercial Ground Source Heating | .             |
|--------------|---------------------------------------|--------------|--------------------------|-------------|--------------|-------------------------------------------------------------|---------------|
| Authority    | 100% of Grade Three Agricultural Land |              |                          |             |              | Total Maximum Uptake (MW)                                   | SUM           |
| Burnley      | 5.11                                  | 1.73         | 0.50                     | 0.21        | 8.75         | 17.21                                                       | 33.52         |
| Calderdale   | 10.36                                 | 3.72         | 1.17                     | 1.10        | 19.25        | 44.39                                                       | 79.99         |
| Kirklees     | 37.26                                 | 7.52         | 1.57                     | 2.68        | 39.00        | 83.33                                                       | 171.36        |
| Pendle       | 4.35                                  | 1.73         | 1.13                     | 0.37        | 8.50         | 15.50                                                       | 31.58         |
| Rossendale   | 0.00                                  | 1.27         | 0.55                     | 0.31        | 7.75         | 17.25                                                       | 27.13         |
| <b>Total</b> | <b>57.09</b>                          | <b>15.97</b> | <b>4.92</b>              | <b>4.67</b> | <b>83.25</b> | <b>177.68</b>                                               | <b>343.58</b> |

**Table A9: Total Pragmatic RLC Electricity Generation (MW)**

| Assessment         | Commercial Scale Wind Energy                | Small Scale Wind Energy                     | Energy Crops                                          | Municipal Anaerobic Digestion    | Waste Wood                                             | Farm Anaerobic Digestion | Woodfuel              | Potential for Solar Energy (PV)               | Hydropower            | SUM (MW)      | SUM Excluding Commercial Wind (MW) |
|--------------------|---------------------------------------------|---------------------------------------------|-------------------------------------------------------|----------------------------------|--------------------------------------------------------|--------------------------|-----------------------|-----------------------------------------------|-----------------------|---------------|------------------------------------|
| Units/ description | Potential Maximum Installed Generation (MW) | Potential Maximum installed Generation (MW) | Generation (5% of Grade Three Agricultural Land) (MW) | Potential Energy Source (MWe)*** | Theoretical Maximum Generation (MW) (Electricity Only) | Electricity only (MW)*   | Electricity Only (MW) | Total generation (commercial and domestic) MW | Electricity Only (MW) |               |                                    |
| Burnley            | 28.85                                       | 0.50                                        | 0.08                                                  | 0.23                             | 0.51                                                   | 0.05                     | 0.06                  | 2.16                                          | 0.07                  | 32.51         | 3.16                               |
| Calderdale         | 51.48                                       | 2.20                                        | 0.16                                                  | 0.60                             | 1.02                                                   | 0.12                     | 0.33                  | 4.88                                          | 0.17                  | 60.96         | 7.28                               |
| Kirklees           | 23.33                                       | 2.67                                        | 0.58                                                  | 0.00                             | 2.13                                                   | 0.16                     | 0.81                  | 9.36                                          | 0.11                  | 39.14         | 13.14                              |
| Pendle             | 38.45                                       | 0.71                                        | 0.07                                                  | 0.24                             | 0.51                                                   | 0.11                     | 0.11                  | 2.08                                          | 0.07                  | 42.36         | 3.19                               |
| Rossendale         | 50.56                                       | 0.57                                        | 0.00                                                  | 0.18                             | 0.34                                                   | 0.06                     | 0.09                  | 1.84                                          | 0.64                  | 54.28         | 3.15                               |
| <b>Total</b>       | <b>192.67</b>                               | <b>6.66</b>                                 | <b>0.88</b>                                           | <b>1.25</b>                      | <b>4.51</b>                                            | <b>0.50</b>              | <b>1.40</b>           | <b>20.32</b>                                  | <b>1.06</b>           | <b>229.25</b> | <b>29.92</b>                       |

**Table A10: Total Pragmatic RLC Heating Generation (MW)**

| -            | Energy Crops                        | Waste Wood  | Farm Anaerobic Digestion | Woodfuel    | Solar Energy | Potential for Domestic and commercial Ground Source Heating | .             |
|--------------|-------------------------------------|-------------|--------------------------|-------------|--------------|-------------------------------------------------------------|---------------|
| Authority    | 5% of Grade Three Agricultural Land |             |                          |             |              | Total Pragmatic Uptake (MW)                                 | SUM (MW)      |
| Burnley      | 0.24                                | 0.87        | 0.08                     | 0.21        | 5.00         | 16.00                                                       | 22.40         |
| Calderdale   | 0.52                                | 1.86        | 0.18                     | 1.10        | 11.00        | 38.50                                                       | 53.15         |
| Kirklees     | 1.85                                | 3.76        | 0.24                     | 2.68        | 22.25        | 73.00                                                       | 103.77        |
| Pendle       | 0.22                                | 0.86        | 0.17                     | 0.37        | 4.75         | 13.25                                                       | 19.62         |
| Rossendale   | 0.00                                | 0.64        | 0.08                     | 0.31        | 4.50         | 16.00                                                       | 21.52         |
| <b>Total</b> | <b>2.83</b>                         | <b>7.99</b> | <b>0.74</b>              | <b>4.67</b> | <b>47.50</b> | <b>156.75</b>                                               | <b>220.47</b> |

**Table A11: Electricity Capacity Factors**

| Technology                                                                           | Capacity Factor |
|--------------------------------------------------------------------------------------|-----------------|
| Biomass                                                                              | 0.85            |
| Co-firing of biomass with fossil fuel @ 5%                                           | 0.9             |
| Biomass and waste using ACT (advanced conversion techniques)                         | 0.85            |
| Hydro (all types)                                                                    | 0.45            |
| Sewage gas                                                                           | 0.4             |
| Landfill gas                                                                         | 0.64            |
| Onshore wind                                                                         | 0.27            |
| Wind $\leq 50\text{kW}$                                                              | 0.1             |
| Solar PV $\leq 50\text{kW}$                                                          | 0.08            |
| Notes.                                                                               |                 |
| The amount of electricity generated is the installed capacity times the load factor. |                 |
| Source Arup, July 2008.                                                              |                 |

**Table A12 Heating Capacity Factor**

| Technology                                                  | Capacity Factor |
|-------------------------------------------------------------|-----------------|
| Energy Crops                                                | 0.85            |
| Waste Wood                                                  | 0.85            |
| Farm Anaerobic Digestion                                    | 0.85            |
| Woodfuel                                                    | 0.85            |
| Solar Energy                                                | 0.25            |
| Potential for Domestic and commercial Ground Source Heating | 0.25            |

**Table A9: Total Pragmatic RLC Electricity Generation (MW)**

| Assessment         | Commercial Scale Wind Energy                | Small Scale Wind Energy                     | Energy Crops                                          | Municipal Anaerobic Digestion    | Waste Wood                                        | Farm Anaerobic Digestion | Woodfuel              | Potential for Solar Energy (PV)            | Hydropower            | SUM (MW)      | SUM Excluding Commercial Wind (MW) |
|--------------------|---------------------------------------------|---------------------------------------------|-------------------------------------------------------|----------------------------------|---------------------------------------------------|--------------------------|-----------------------|--------------------------------------------|-----------------------|---------------|------------------------------------|
| Units/ description | Potential Maximum Installed Generation (MW) | Potential Maximum installed Generation (MW) | Generation (5% of Grade Three Agricultural Land) (MW) | Potential Energy Source (MWe)*** | Theoretical Maximum Generation (MW) (Electricity) | Electricity only (MW)*   | Electricity Only (MW) | Total generation (commercial and domestic) | Electricity Only (MW) |               |                                    |
| Burnley            | 28.85                                       | 0.50                                        | 0.08                                                  | 0.23                             | 0.51                                              | 0.05                     | 0.06                  | 2.16                                       | 0.07                  | 32.51         | 3.16                               |
| Calderdale         | 51.48                                       | 2.20                                        | 0.16                                                  | 0.60                             | 1.02                                              | 0.12                     | 0.33                  | 4.88                                       | 0.17                  | 60.96         | 7.28                               |
| Kirklees           | 23.33                                       | 2.67                                        | 0.58                                                  | 0.00                             | 2.13                                              | 0.16                     | 0.81                  | 9.36                                       | 0.11                  | 39.14         | 13.14                              |
| Pendle             | 38.45                                       | 0.71                                        | 0.07                                                  | 0.24                             | 0.51                                              | 0.11                     | 0.11                  | 2.08                                       | 0.07                  | 42.36         | 3.19                               |
| Rossendale         | 50.56                                       | 0.57                                        | 0.00                                                  | 0.18                             | 0.34                                              | 0.06                     | 0.09                  | 1.84                                       | 0.64                  | 54.28         | 3.15                               |
| <b>Total</b>       | <b>192.67</b>                               | <b>6.66</b>                                 | <b>0.88</b>                                           | <b>1.25</b>                      | <b>4.51</b>                                       | <b>0.50</b>              | <b>1.40</b>           | <b>20.32</b>                               | <b>1.06</b>           | <b>229.25</b> | <b>29.92</b>                       |

**Table A13: High Level Electricity Uptake Scenario**

|                   | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops       | Municipal Anaerobic Digestion | Waste Wood         | Farm Anaerobic Digestion | Wood Fuel          | Potential for Solar Energy (PV) | Hydropower         |               | Difference from Target (MW)          |            |
|-------------------|------------------------------|-------------------------|--------------------|-------------------------------|--------------------|--------------------------|--------------------|---------------------------------|--------------------|---------------|--------------------------------------|------------|
| Authority         | Proportion of Prag           | Proportion of Prag      | Proportion of Prag | Proportion of Prag            | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag              | Proportion of Prag | Totals        | +ve exceeds target, -ve is shortfall | Targets MW |
| Proportion uptake | 0.8                          | 0.5                     | 1                  | 1                             | 1                  | 1                        | 1                  | 0.5                             | 0.5                |               |                                      |            |
| Burnley           | 23.08                        | 0.25                    | 0.08               | 0.23                          | 0.51               | 0.05                     | 0.06               | 1.08                            | 0.03               | 25.37         | 16.17                                | 14.6       |
| Calderdale        | 41.18                        | 1.10                    | 0.16               | 0.60                          | 1.02               | 0.12                     | 0.33               | 2.44                            | 0.08               | 47.04         | 18.70                                | 35.6       |
| Kirklees          | 18.66                        | 1.34                    | 0.58               | 0.00                          | 2.13               | 0.16                     | 0.81               | 4.68                            | 0.06               | 28.40         | -16.20                               | 64.8       |
| Pendle            | 30.76                        | 0.36                    | 0.07               | 0.24                          | 0.51               | 0.11                     | 0.11               | 1.04                            | 0.04               | 33.24         | 17.94                                | 15.4       |
| Rossendale        | 40.45                        | 0.28                    | 0.00               | 0.18                          | 0.34               | 0.06                     | 0.09               | 0.92                            | 0.32               | 42.64         | 38.61                                | 14.8       |
| <b>Totals</b>     | <b>154.94</b>                | <b>3.83</b>             | <b>1.88</b>        | <b>2.25</b>                   | <b>5.51</b>        | <b>1.50</b>              | <b>2.40</b>        | <b>10.66</b>                    | <b>1.03</b>        | <b>176.70</b> | <b>75.22</b>                         |            |

N.B. Proportion of Prag = the proportion of the estimated pragmatic generation potential stated in Table A9 utilised under the scenario

**Table A14 Medium Level Electricity Uptake Scenario**

| Assessment    | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops       | Municipal Anaerobic Digestion | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Potential for Solar Energy (PV) | Hydropower         |  |               | Difference from Target (MW)          |
|---------------|------------------------------|-------------------------|--------------------|-------------------------------|--------------------|--------------------------|--------------------|---------------------------------|--------------------|--|---------------|--------------------------------------|
| Authority     | Proportion of Prag           | Proportion of Prag      | Proportion of Prag | Proportion of Prag            | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag              | Proportion of Prag |  | Totals        | +ve exceeds target, -ve is shortfall |
|               | 0.5                          | 0.5                     | 0.5                | 0.5                           | 0.5                | 0.5                      | 0.5                | 0.2                             | 0.25               |  |               |                                      |
| Burnley       | 14.43                        | 0.25                    | 0.04               | 0.11                          | 0.26               | 0.03                     | 0.03               | 0.43                            | 0.02               |  | 15.59         | 6.39                                 |
| Calderdale    | 25.74                        | 1.10                    | 0.08               | 0.30                          | 0.51               | 0.06                     | 0.17               | 0.98                            | 0.04               |  | 28.98         | 0.64                                 |
| Kirklees      | 11.66                        | 1.34                    | 0.29               | 0.00                          | 1.06               | 0.08                     | 0.40               | 1.87                            | 0.03               |  | 16.73         | -27.87                               |
| Pendle        | 19.23                        | 0.36                    | 0.03               | 0.12                          | 0.26               | 0.06                     | 0.06               | 0.42                            | 0.02               |  | 20.54         | 5.24                                 |
| Rossendale    | 25.28                        | 0.28                    | 0.00               | 0.09                          | 0.17               | 0.03                     | 0.05               | 0.37                            | 0.16               |  | 26.43         | 22.40                                |
| <b>Totals</b> | <b>96.83</b>                 | <b>3.83</b>             | <b>0.94</b>        | <b>1.12</b>                   | <b>2.75</b>        | <b>0.75</b>              | <b>1.20</b>        | <b>4.26</b>                     | <b>0.52</b>        |  | <b>108.26</b> |                                      |

**Table A15 Low Level Electricity Uptake Scenario**

| Assessment    | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops       | Municipal Anaerobic Digestion | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Potential for Solar Energy (PV) | Hydropower         |  |              | Difference from Target (MW)          |
|---------------|------------------------------|-------------------------|--------------------|-------------------------------|--------------------|--------------------------|--------------------|---------------------------------|--------------------|--|--------------|--------------------------------------|
| Authority     | Proportion of Prag           | Proportion of Prag      | Proportion of Prag | Proportion of Prag            | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag              | Proportion of Prag |  | Totals       | +ve exceeds target, -ve is shortfall |
|               | As per no visual             | 0.1                     | 0.2                | 0.25                          | 0.25               | 0.25                     | 0.25               | 0.01                            | 0.25               |  |              |                                      |
| Burnley       | 11.50                        | 0.05                    | 0.02               | 0.06                          | 0.13               | 0.01                     | 0.01               | 0.02                            | 0.02               |  | 11.81        | 2.61                                 |
| Calderdale    | 20.51                        | 0.22                    | 0.03               | 0.15                          | 0.26               | 0.03                     | 0.08               | 0.05                            | 0.04               |  | 21.37        | -6.97                                |
| Kirklees      | 9.29                         | 0.27                    | 0.12               | 0.00                          | 0.53               | 0.04                     | 0.20               | 0.09                            | 0.03               |  | 10.57        | -34.03                               |
| Pendle        | 15.32                        | 0.07                    | 0.01               | 0.06                          | 0.13               | 0.03                     | 0.03               | 0.02                            | 0.02               |  | 15.69        | 0.39                                 |
| Rossendale    | 20.15                        | 0.06                    | 0.00               | 0.04                          | 0.09               | 0.01                     | 0.02               | 0.02                            | 0.16               |  | 20.55        | 16.52                                |
| <b>Totals</b> | <b>76.77</b>                 | <b>0.67</b>             | <b>0.18</b>        | <b>0.31</b>                   | <b>1.13</b>        | <b>0.13</b>              | <b>0.35</b>        | <b>0.20</b>                     | <b>0.27</b>        |  | <b>79.99</b> |                                      |

**Table A9: Total Pragmatic RLC Electricity Generation (MW)**

| Assessment         | Commercial Scale Wind Energy                | Small Scale Wind Energy                     | Energy Crops                               | Municipal Anaerobic Digestion    | Waste Wood                                       | Farm Anaerobic Digestion | Woodfuel              | Potential for Solar Energy (PV)            | Hydropower            | SUM (MW)      | SUM Excluding Commercial Wind (MW) |
|--------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------|----------------------------------|--------------------------------------------------|--------------------------|-----------------------|--------------------------------------------|-----------------------|---------------|------------------------------------|
| Units/ description | Potential Maximum Installed Generation (MW) | Potential Maximum installed Generation (MW) | Generation (5% of Grade Three Agricultural | Potential Energy Source (MWe)*** | Theoretical Maximum Generation (MW) (Electricity | Electricity only (MW)*   | Electricity Only (MW) | Total generation (commercial and domestic) | Electricity Only (MW) |               |                                    |
| Burnley            | 28.85                                       | 0.50                                        | 0.08                                       | 0.23                             | 0.51                                             | 0.05                     | 0.06                  | 2.16                                       | 0.07                  | 32.51         | 3.16                               |
| Calderdale         | 51.48                                       | 2.20                                        | 0.16                                       | 0.60                             | 1.02                                             | 0.12                     | 0.33                  | 4.88                                       | 0.17                  | 60.96         | 7.28                               |
| Kirklees           | 23.33                                       | 2.67                                        | 0.58                                       | 0.00                             | 2.13                                             | 0.16                     | 0.81                  | 9.36                                       | 0.11                  | 39.14         | 13.14                              |
| Pendle             | 38.45                                       | 0.71                                        | 0.07                                       | 0.24                             | 0.51                                             | 0.11                     | 0.11                  | 2.08                                       | 0.07                  | 42.36         | 3.19                               |
| Rossendale         | 50.56                                       | 0.57                                        | 0.00                                       | 0.18                             | 0.34                                             | 0.06                     | 0.09                  | 1.84                                       | 0.64                  | 54.28         | 3.15                               |
| <b>Total</b>       | <b>192.67</b>                               | <b>6.66</b>                                 | <b>0.88</b>                                | <b>1.25</b>                      | <b>4.51</b>                                      | <b>0.50</b>              | <b>1.40</b>           | <b>20.32</b>                               | <b>1.06</b>           | <b>229.25</b> | <b>29.92</b>                       |

**Table A16: High Wind Uptake Basket**

| Assessment    | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops       | Municipal Anaerobic Digestion | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Potential for Solar Energy (PV) | Hydropower         |               | Difference from Target (MW)          |
|---------------|------------------------------|-------------------------|--------------------|-------------------------------|--------------------|--------------------------|--------------------|---------------------------------|--------------------|---------------|--------------------------------------|
| Authority     | Proportion of Prag uptake    | Proportion of Prag      | Proportion of Prag | Proportion of Prag            | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag              | Proportion of Prag | Totals        | +ve exceeds target, -ve is shortfall |
|               | 1                            | 1                       | 0.25               | 0.5                           | 0.5                | 0.5                      | 0.5                | 0.05                            | 0                  |               |                                      |
| Burnley       | 28.85                        | 0.50                    | 0.02               | 0.11                          | 0.26               | 0.03                     | 0.03               | 0.11                            | 0                  | 29.91         | 20.70                                |
| Calderdale    | 51.48                        | 2.20                    | 0.04               | 0.30                          | 0.51               | 0.06                     | 0.17               | 0.24                            | 0                  | 55.00         | 26.66                                |
| Kirklees      | 23.33                        | 2.67                    | 0.14               | 0.00                          | 1.06               | 0.08                     | 0.40               | 0.47                            | 0                  | 28.16         | -16.45                               |
| Pendle        | 38.45                        | 0.71                    | 0.02               | 0.12                          | 0.26               | 0.06                     | 0.06               | 0.10                            | 0                  | 39.77         | 24.47                                |
| Rossendale    | 50.56                        | 0.57                    | 0.00               | 0.09                          | 0.17               | 0.03                     | 0.05               | 0.09                            | 0                  | 51.56         | 47.53                                |
| <b>Totals</b> | <b>193.67</b>                | <b>7.66</b>             | <b>0.47</b>        | <b>1.12</b>                   | <b>2.75</b>        | <b>0.75</b>              | <b>1.20</b>        | <b>1.07</b>                     | <b>0</b>           | <b>204.39</b> |                                      |

N.B. Proportion of Prag = the proportion of the estimated pragmatic generation potential stated in Table A9 utilised under the scenario

Table A17: Maximising Non-Wind Basket

What is realistic to generate from other Technologies

| Assessment    | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops       | Municipal Anaerobic Digestion | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Potential for Solar Energy (PV) | Hydropower         |              | Difference from Target (MW)          |
|---------------|------------------------------|-------------------------|--------------------|-------------------------------|--------------------|--------------------------|--------------------|---------------------------------|--------------------|--------------|--------------------------------------|
| Authority     | Proportion of Prag           | Proportion of Prag      | Proportion of Prag | Proportion of Prag            | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag              | Proportion of Prag | Totals       | +ve exceeds target, -ve is shortfall |
|               | 0                            | 0                       | 1                  | 1                             | 1                  | 1                        | 1                  | 0.8                             | 0.75               |              |                                      |
| Burnley       | 0                            | 0                       | 0.08               | 0.23                          | 0.51               | 0.05                     | 0.06               | 1.73                            | 0.05               | 2.71         | -6.50                                |
| Calderdale    | 0                            | 0                       | 0.16               | 0.60                          | 1.02               | 0.12                     | 0.33               | 3.90                            | 0.13               | 6.27         | -22.07                               |
| Kirklees      | 0                            | 0                       | 0.58               | 0.00                          | 2.13               | 0.16                     | 0.81               | 7.49                            | 0.09               | 11.24        | -33.36                               |
| Pendle        | 0                            | 0                       | 0.07               | 0.24                          | 0.51               | 0.11                     | 0.11               | 1.66                            | 0.05               | 2.76         | -12.54                               |
| Rossendale    | 0                            | 0                       | 0.00               | 0.18                          | 0.34               | 0.06                     | 0.09               | 1.47                            | 0.48               | 2.62         | -1.41                                |
| <b>Totals</b> | <b>0</b>                     | <b>0</b>                | <b>0.88</b>        | <b>1.25</b>                   | <b>4.51</b>        | <b>0.50</b>              | <b>1.40</b>        | <b>16.26</b>                    | <b>0.80</b>        | <b>25.59</b> |                                      |

Table A18: No Additional Wind Basket

What can you get from other technologies at a maximum

| Assessment    | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops       | Municipal Anaerobic Digestion | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Potential for Solar Energy (PV) | Hydropower         |              | Difference from Target (MW)          |
|---------------|------------------------------|-------------------------|--------------------|-------------------------------|--------------------|--------------------------|--------------------|---------------------------------|--------------------|--------------|--------------------------------------|
| Authority     | No additional wind           | Proportion of Prag      | Proportion of Prag | Proportion of Prag            | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag              | Proportion of Prag | Totals       | +ve exceeds target, -ve is shortfall |
|               |                              | 0                       | 1                  | 1                             | 1                  | 1                        | 1                  | 1                               | 1                  |              |                                      |
| Burnley       | 4.21                         | 0                       | 0.08               | 0.23                          | 0.51               | 0.05                     | 0.06               | 2.16                            | 0.07               | 7.37         | -6.05                                |
| Calderdale    | 6.53                         | 0                       | 0.16               | 0.60                          | 1.02               | 0.12                     | 0.33               | 4.88                            | 0.17               | 13.82        | -21.06                               |
| Kirklees      | 0.00                         | 0                       | 0.58               | 0.00                          | 2.13               | 0.16                     | 0.81               | 9.36                            | 0.11               | 13.14        | -31.46                               |
| Pendle        | 0.00                         | 0                       | 0.07               | 0.24                          | 0.51               | 0.11                     | 0.11               | 2.08                            | 0.07               | 3.19         | -12.11                               |
| Rossendale    | 9.86                         | 0                       | 0.00               | 0.18                          | 0.34               | 0.06                     | 0.09               | 1.84                            | 0.64               | 13.01        | -0.88                                |
| <b>Totals</b> | <b>20.61</b>                 | <b>0</b>                | <b>0.88</b>        | <b>1.25</b>                   | <b>4.51</b>        | <b>0.50</b>              | <b>1.40</b>        | <b>20.32</b>                    | <b>1.06</b>        | <b>50.53</b> |                                      |

Table A19: Existing and Planned Wind Energy and Landscape Capacity

| Wind Energy   | Existing wind | Additional Capacity potential based on JMA 2010 | Capacity potential based on JMA 2010 as 2.5MW turbines | In planning but not consented MW capacity | In Planning not consented Generation MW |
|---------------|---------------|-------------------------------------------------|--------------------------------------------------------|-------------------------------------------|-----------------------------------------|
| Burnley       | 4.21          | 42.6                                            | 17.03                                                  | 16.40                                     | 4.43                                    |
| Calderdale    | 6.53          | 76.0                                            | 30.39                                                  | 10.80                                     | 2.92                                    |
| Kirklees      |               | 34.4                                            | 13.77                                                  |                                           | 0.00                                    |
| Pendle        |               | 56.7                                            | 22.70                                                  |                                           | 0.00                                    |
| Rossendale    | 9.86          | 74.6                                            | 29.85                                                  | 0.00                                      | 0.00                                    |
| <b>Totals</b> |               | <b>284.33</b>                                   | <b>113.73</b>                                          | <b>27.20</b>                              | <b>7.34</b>                             |

**Table A20: All Windfarms in Planning Basket**

| Assessment | Commercial Scale Wind Energy          | Small Scale Wind Energy | Energy Crops       | Municipal Anaerobic Digestion | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Potential for Solar Energy (PV) | Hydropower         |  |        | Generation Difference from Target (MW) | Wind Capacity difference from Target (MW) |                           |
|------------|---------------------------------------|-------------------------|--------------------|-------------------------------|--------------------|--------------------------|--------------------|---------------------------------|--------------------|--|--------|----------------------------------------|-------------------------------------------|---------------------------|
| Authority  | Existing and consented Windfarms (MW) | Proportion of Prag      | Proportion of Prag | Proportion of Prag            | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag              | Proportion of Prag |  | Totals | +ve exceeds target, -ve is shortfall   | +ve exceeds target, -ve is shortfall      | No of Additional turbines |
|            |                                       | 0.05                    | 0.25               | 0.5                           | 0.5                | 0.5                      | 0.5                | 0.01                            | 0.5                |  |        |                                        |                                           |                           |
| Burnley    | 8.64                                  | 0.03                    | 0.02               | 0.11                          | 0.26               | 0.03                     | 0.03               | 0.02                            | 0.03               |  | 9.17   | -4.25                                  | -15.74                                    | 6.30                      |
| Calderdale | 9.45                                  | 0.11                    | 0.04               | 0.30                          | 0.51               | 0.06                     | 0.17               | 0.05                            | 0.08               |  | 10.77  | -24.10                                 | -89.27                                    | 35.71                     |
| Kirklees   | 0.00                                  | 0.13                    | 0.14               | 0.00                          | 1.06               | 0.08                     | 0.40               | 0.09                            | 0.06               |  | 1.97   | -42.63                                 | -157.89                                   | 63.15                     |
| Pendle     | 0.00                                  | 0.04                    | 0.02               | 0.12                          | 0.26               | 0.06                     | 0.06               | 0.02                            | 0.04               |  | 0.60   | -14.70                                 | -54.46                                    | 21.78                     |
| Rossendale | 9.86                                  | 0.03                    | 0.00               | 0.09                          | 0.17               | 0.03                     | 0.05               | 0.02                            | 0.32               |  | 10.56  | -3.33                                  | -12.33                                    | 4.93                      |
| Totals     | 27.95                                 | 0.38                    | 0.47               | 1.12                          | 2.75               | 0.75                     | 1.20               | 0.21                            | 1.03               |  | 33.07  |                                        |                                           |                           |

**Table A21: Projected Electricity Consumption, RSS Targets and Current RLC Installed Capacity**

| Council    | Projected 2020 Electricity Consumption MW | Indicative National RES Target (30%) MW | Indicative local Targets in 2021 MW (RSS Yorkshire and Humber) | Lancashire RSS targets MW |  | Target to hit | Current Installed Generation MW | Difference | Non-Wind Installed Generation (MW) |
|------------|-------------------------------------------|-----------------------------------------|----------------------------------------------------------------|---------------------------|--|---------------|---------------------------------|------------|------------------------------------|
| Burnley    | 48.7                                      | 14.6                                    |                                                                | 27.2                      |  | 14.6          | 5.40                            | 9.20       | 1.18                               |
| Calderdale | 118.7                                     | 35.6                                    | 53                                                             |                           |  | 35.6          | 7.26                            | 28.34      | 0.73                               |
| Kirklees   | 216                                       | 64.8                                    | 48                                                             |                           |  | 64.8          | 20.20                           | 44.60      | 20.20                              |
| Pendle     | 51.4                                      | 15.4                                    |                                                                | 27.1                      |  | 15.4          | 0.10                            | 15.30      | 0.10                               |
| Rossendale | 49.4                                      | 14.8                                    |                                                                | 19.9                      |  | 14.8          | 10.77                           | 4.03       | 0.91                               |
| Totals     | 484.3                                     | 145.3                                   |                                                                |                           |  |               |                                 |            |                                    |

Notes.

1. Electricity Projections to 2020 - 2007 (DECC website) electricity values increasing at 1.1% pa.
2. RES - UK renewable energy strategy, 2009.
3. Calderdale and Kirklees have targets from Y&H RSS
4. Lancashire Targets based upon Lancs RSS and proportion of population in target area.
5. Additional targets are presented in appendix ...

Table A9: Total Pragmatic RLC Electricity Generation (MW)

| Assessment         |  | Commercial Scale Wind Energy                | Small Scale Wind Energy                     | Energy Crops                               | Municipal Anaerobic Digestion    | Waste Wood                                       | Farm Anaerobic Digestion | Woodfuel              | Potential for Solar Energy (PV)               | Hydropower            | SUM (MW)      | Excluding Commercial Wind (MW) |
|--------------------|--|---------------------------------------------|---------------------------------------------|--------------------------------------------|----------------------------------|--------------------------------------------------|--------------------------|-----------------------|-----------------------------------------------|-----------------------|---------------|--------------------------------|
| Units/ description |  | Potential Maximum Installed Generation (MW) | Potential Maximum installed Generation (MW) | Generation (5% of Grade Three Agricultural | Potential Energy Source (MWe)*** | Theoretical Maximum Generation (MW) (Electricity | Electricity only (MW)*   | Electricity Only (MW) | Total generation (commercial and domestic) MW | Electricity Only (MW) |               |                                |
| Burnley            |  | 28.85                                       | 0.50                                        | 0.08                                       | 0.23                             | 0.51                                             | 0.05                     | 0.06                  | 2.16                                          | 0.07                  | 32.51         | 3.16                           |
| Calderdale         |  | 51.48                                       | 2.20                                        | 0.16                                       | 0.60                             | 1.02                                             | 0.12                     | 0.33                  | 4.88                                          | 0.17                  | 60.96         | 7.28                           |
| Kirklees           |  | 23.33                                       | 2.67                                        | 0.58                                       | 0.00                             | 2.13                                             | 0.16                     | 0.81                  | 9.36                                          | 0.11                  | 39.14         | 13.14                          |
| Pendle             |  | 38.45                                       | 0.71                                        | 0.07                                       | 0.24                             | 0.51                                             | 0.11                     | 0.11                  | 2.08                                          | 0.07                  | 42.36         | 3.19                           |
| Rossendale         |  | 50.56                                       | 0.57                                        | 0.00                                       | 0.18                             | 0.34                                             | 0.06                     | 0.09                  | 1.84                                          | 0.64                  | 54.28         | 3.15                           |
| <b>Total</b>       |  | <b>192.67</b>                               | <b>6.66</b>                                 | <b>0.88</b>                                | <b>1.25</b>                      | <b>4.51</b>                                      | <b>0.50</b>              | <b>1.40</b>           | <b>20.32</b>                                  | <b>1.06</b>           | <b>229.25</b> | <b>29.92</b>                   |

Table A22: Burnley Electricity Baskets

| Assessment        |                           | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops | Municipal Anaerobic Digestion | Waste Wood | Farm Anaerobic Digestion | Woodfuel | Potential for Solar Energy (PV) | Hydropower | Totals | Difference from Target (MW) | Additional Wind Capacity Required (MW) | No of Additional turbines |
|-------------------|---------------------------|------------------------------|-------------------------|--------------|-------------------------------|------------|--------------------------|----------|---------------------------------|------------|--------|-----------------------------|----------------------------------------|---------------------------|
| High wind         | Proportion of Prag uptake | 1                            | 1                       | 0.25         | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.05                            | 0          |        | -ve is shortfall            |                                        |                           |
|                   | Generation                | 28.85                        | 0.50                    | 0.02         | 0.11                          | 0.26       | 0.03                     | 0.03     | 0.11                            | 0.00       | 29.91  | 20.70                       | -76.67                                 | -30.67                    |
| Enough Wind       | Proportion of Prag uptake | 0.29                         | 0.29                    | 0.5          | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.2                             | 0.25       |        |                             |                                        |                           |
|                   | Generation                | 8.37                         | 0.15                    | 0.04         | 0.11                          | 0.26       | 0.03                     | 0.03     | 0.43                            | 0.02       | 9.43   | 0.22                        | -0.82                                  | -0.33                     |
| Maximise Non-Wind | Proportion of Prag uptake | 0                            | 0                       | 1            | 1                             | 1          | 1                        | 1        | 1                               | 1          |        |                             |                                        |                           |
|                   | Generation                | 0.00                         | 0.00                    | 0.08         | 0.23                          | 0.51       | 0.05                     | 0.06     | 2.16                            | 0.07       | 3.16   | -6.05                       | 22.40                                  | 8.96                      |

N.B. Proportion of Prag = the proportion of the estimated pragmatic generation potential stated in Table A9 utilised under the scenario

Table A23: Calderdale Electricity Baskets

| Assessment        |                           | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops | Municipal Anaerobic Digestion | Waste Wood | Farm Anaerobic Digestion | Woodfuel | Potential for Solar Energy (PV) | Hydropower | Totals | Difference from Target (MW) | Additional Wind Capacity Required (MW) | No of Additional turbines |
|-------------------|---------------------------|------------------------------|-------------------------|--------------|-------------------------------|------------|--------------------------|----------|---------------------------------|------------|--------|-----------------------------|----------------------------------------|---------------------------|
| High wind         | Proportion of Prag uptake | 1                            | 1                       | 0.25         | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.05                            | 0          |        | -ve is shortfall            |                                        |                           |
|                   | Generation                | 51.48                        | 2.20                    | 0.04         | 0.30                          | 0.51       | 0.06                     | 0.17     | 0.24                            | 0.00       | 55.00  | 26.66                       | -98.75                                 | -39.50                    |
| Enough Wind       | Proportion of Prag uptake | 0.48                         | 0.48                    | 0.5          | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.2                             | 0.25       |        |                             |                                        |                           |
|                   | Generation                | 24.71                        | 1.06                    | 0.08         | 0.30                          | 0.51       | 0.06                     | 0.17     | 0.98                            | 0.04       | 27.90  | -0.44                       | 1.62                                   | 0.65                      |
| Maximise Non-Wind | Proportion of Prag uptake | 0                            | 0                       | 1            | 1                             | 1          | 1                        | 1        | 1                               | 1          |        |                             |                                        |                           |
|                   | Generation                | 0.00                         | 0.00                    | 0.16         | 0.60                          | 1.02       | 0.12                     | 0.33     | 4.88                            | 0.17       | 7.28   | -21.06                      | 77.98                                  | 31.19                     |

Table A24: Kirklees Electricity Baskets

| Assessment        |                           | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops | Municipal Anaerobic Digestion | Waste Wood | Farm Anaerobic Digestion | Woodfuel | Potential for Solar Energy (PV) | Hydropower | Totals | Difference from Target (MW) | Additional Wind Capacity Required (MW) | No of Additional turbines |
|-------------------|---------------------------|------------------------------|-------------------------|--------------|-------------------------------|------------|--------------------------|----------|---------------------------------|------------|--------|-----------------------------|----------------------------------------|---------------------------|
| High wind         | Proportion of Prag uptake | 1                            | 1                       | 0.25         | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.05                            | 0          |        | -ve is shortfall            |                                        |                           |
|                   | Generation                | 23.33                        | 2.67                    | 0.14         | 0.00                          | 1.06       | 0.08                     | 0.40     | 0.47                            | 0.00       | 28.157 | -16.45                      | 60.92                                  | 24.37                     |
| Enough Wind       | Proportion of Prag uptake | 1                            | 1                       | 0.5          | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.2                             | 0.25       |        |                             |                                        |                           |
|                   | Generation                | 23.33                        | 2.67                    | 0.29         | 0.00                          | 1.06       | 0.08                     | 0.40     | 1.87                            | 0.03       | 29.734 | -14.87                      | 55.08                                  | 22.03                     |
| Maximise Non-Wind | Proportion of Prag uptake | 0                            | 0                       | 1            | 1                             | 1          | 1                        | 1        | 1                               | 1          |        |                             |                                        |                           |
|                   | Generation                | 0.00                         | 0.00                    | 0.58         | 0.00                          | 2.13       | 0.16                     | 0.81     | 9.36                            | 0.11       | 13.144 | -31.46                      | 116.52                                 | 46.61                     |

Table A25: Pendle Electricity Baskets

| Assessment        |                           | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops | Municipal Anaerobic Digestion | Waste Wood | Farm Anaerobic Digestion | Woodfuel | Potential for Solar Energy (PV) | Hydropower | Totals | Difference from Target (MW) | Wind Capacity Required (MW) | No of Additional turbines |
|-------------------|---------------------------|------------------------------|-------------------------|--------------|-------------------------------|------------|--------------------------|----------|---------------------------------|------------|--------|-----------------------------|-----------------------------|---------------------------|
| High wind         | Proportion of Prag uptake | 1                            | 1                       | 0.25         | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.05                            | 0          |        | -ve is shortfall            |                             |                           |
|                   | Generation                | 38.45                        | 0.71                    | 0.02         | 0.12                          | 0.26       | 0.06                     | 0.06     | 0.10                            | 0.00       | 39.77  | 24.47                       | -90.64                      | -36.26                    |
| Enough Wind       | Proportion of Prag uptake | 0.36                         | 0.35                    | 0.5          | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.2                             | 0.25       |        |                             |                             |                           |
|                   | Generation                | 13.84                        | 0.25                    | 0.03         | 0.12                          | 0.26       | 0.06                     | 0.06     | 0.42                            | 0.02       | 15.05  | -0.25                       | 0.94                        | 0.37                      |
| Maximise Non-Wind | Proportion of Prag uptake | 0                            | 0                       | 1            | 1                             | 1          | 1                        | 1        | 1                               | 1          |        |                             |                             |                           |
|                   | Generation                | 0.00                         | 0.00                    | 0.07         | 0.24                          | 0.51       | 0.11                     | 0.11     | 2.08                            | 0.07       | 3.19   | -12.11                      | 44.84                       | 17.94                     |

Table A26: Rossendale Electricity Baskets

| Assessment        |                           | Commercial Scale Wind Energy | Small Scale Wind Energy | Energy Crops | Municipal Anaerobic Digestion | Waste Wood | Farm Anaerobic Digestion | Woodfuel | Potential for Solar Energy (PV) | Hydropower | Totals | Difference from Target (MW) | Additional Wind Capacity Required (MW) | No of Additional turbines |
|-------------------|---------------------------|------------------------------|-------------------------|--------------|-------------------------------|------------|--------------------------|----------|---------------------------------|------------|--------|-----------------------------|----------------------------------------|---------------------------|
| High wind         | Proportion of Prag uptake | 1                            | 1                       | 0.25         | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.05                            | 0          |        | -ve is shortfall            |                                        |                           |
|                   | Generation                | 50.56                        | 0.57                    | 0.00         | 0.09                          | 0.17       | 0.03                     | 0.05     | 0.09                            | 0.00       | 51.56  | 47.53                       | -176.03                                | -70.41                    |
| Enough Wind       | Proportion of Prag uptake | 0.06                         | 0.06                    | 0.5          | 0.5                           | 0.5        | 0.5                      | 0.5      | 0.2                             | 0.25       |        |                             |                                        |                           |
|                   | Generation                | 3.03                         | 0.03                    | 0.00         | 0.09                          | 0.17       | 0.03                     | 0.05     | 0.37                            | 0.16       | 3.9298 | -0.10                       | 0.37                                   | 0.15                      |
| Maximise Non-Wind | Proportion of Prag uptake | 0                            | 0                       | 1            | 1                             | 1          | 1                        | 1        | 1                               | 1          |        |                             |                                        |                           |
|                   | Generation                | 0.00                         | 0.00                    | 0.00         | 0.18                          | 0.34       | 0.06                     | 0.09     | 1.84                            | 0.64       | 3.1477 | -0.88                       | 3.27                                   | 1.31                      |

**Table A10: Total Pragmatic RLC Heating Generation (MW)**

|            | Energy Crops                        | Waste Wood | Farm Anaerobic Digestion | Woodfuel | Solar Energy | Potential for Domestic and commercial Ground Source Heating |          |
|------------|-------------------------------------|------------|--------------------------|----------|--------------|-------------------------------------------------------------|----------|
| Authority  | 5% of Grade Three Agricultural Land |            |                          |          |              | Total Pragmatic Uptake (MW)                                 | SUM (MW) |
| Burnley    | 0.24                                | 0.87       | 0.08                     | 0.21     | 5.00         | 16.00                                                       | 22.40    |
| Calderdale | 0.52                                | 1.86       | 0.18                     | 1.10     | 11.00        | 38.50                                                       | 53.15    |
| Kirklees   | 1.85                                | 3.76       | 0.24                     | 2.68     | 22.25        | 73.00                                                       | 103.77   |
| Pendle     | 0.22                                | 0.86       | 0.17                     | 0.37     | 4.75         | 13.25                                                       | 19.62    |
| Rossendale | 0.00                                | 0.64       | 0.08                     | 0.31     | 4.50         | 16.00                                                       | 21.52    |

**Table A27: High Level Heating Uptake Scenario**

| Authority  | Energy Crops       | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Solar Energy       | Potential for Domestic and commercial Ground Source Heating (low figure) | Sum (MW) | Proportion of 2020 Total Heating Demand |
|------------|--------------------|--------------------|--------------------------|--------------------|--------------------|--------------------------------------------------------------------------|----------|-----------------------------------------|
|            | Proportion of Prag | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag | Proportion of Prag                                                       |          |                                         |
|            | 1                  | 1                  | 1                        | 1                  | 1                  | 1                                                                        |          |                                         |
| Burnley    | 0.24               | 0.87               | 0.08                     | 0.21               | 5.00               | 16.00                                                                    | 22.40    | 22.72%                                  |
| Calderdale | 0.52               | 1.86               | 0.18                     | 1.10               | 11.00              | 38.50                                                                    | 53.15    | 22.88%                                  |
| Kirklees   | 1.85               | 3.76               | 0.24                     | 2.68               | 22.25              | 73.00                                                                    | 103.77   | 22.74%                                  |
| Pendle     | 0.22               | 0.86               | 0.17                     | 0.37               | 4.75               | 13.25                                                                    | 19.62    | 20.04%                                  |
| Rossendale | 0.00               | 0.64               | 0.08                     | 0.31               | 4.50               | 16.00                                                                    | 21.52    | 27.94%                                  |

N.B. Proportion of Prag = the proportion of the estimated pragmatic generation potential stated in Table A10 utilised under the scenario

**Table A28: Medium Level Heating Uptake Scenario**

| Authority  | Energy Crops       | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Solar Energy       | Potential for Domestic and commercial Ground Source Heating (low figure) | Sum (MW) | Proportion of 2020 Total Heating Demand |
|------------|--------------------|--------------------|--------------------------|--------------------|--------------------|--------------------------------------------------------------------------|----------|-----------------------------------------|
|            | Proportion of Prag | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag | Proportion of Prag                                                       |          |                                         |
|            | 0.75               | 0.75               | 0.75                     | 0.75               | 0.75               | 0.75                                                                     |          |                                         |
| Burnley    | 0.18               | 0.65               | 0.06                     | 0.16               | 3.75               | 12.00                                                                    | 16.80    | 17.04%                                  |
| Calderdale | 0.39               | 1.40               | 0.13                     | 0.82               | 8.25               | 28.88                                                                    | 39.86    | 17.16%                                  |
| Kirklees   | 1.39               | 2.82               | 0.18                     | 2.01               | 16.69              | 54.75                                                                    | 77.83    | 17.06%                                  |
| Pendle     | 0.16               | 0.65               | 0.13                     | 0.28               | 3.56               | 9.94                                                                     | 14.72    | 15.03%                                  |
| Rossendale | 0.00               | 0.48               | 0.06                     | 0.23               | 3.38               | 12.00                                                                    | 16.14    | 20.95%                                  |

**Table A29: Low Level Heating Uptake Scenario (commercial and off grid domestic uptake of ground source heating)**

| Authority  | Energy Crops       | Waste Wood         | Farm Anaerobic Digestion | Woodfuel           | Solar Energy       | Potential for Domestic and commercial Ground Source Heating (low figure) | Sum (MW) | Proportion of 2020 Total Heating Demand |
|------------|--------------------|--------------------|--------------------------|--------------------|--------------------|--------------------------------------------------------------------------|----------|-----------------------------------------|
|            | Proportion of Prag | Proportion of Prag | Proportion of Prag       | Proportion of Prag | Proportion of Prag | (see Table 4-38 x capacity factor)                                       |          |                                         |
|            | 0.5                | 0.5                | 0.5                      | 0.5                | 0.5                |                                                                          |          |                                         |
| Burnley    | 0.12               | 0.43               | 0.04                     | 0.11               | 2.50               | 1.81                                                                     | 5.01     | 5.08%                                   |
| Calderdale | 0.26               | 0.93               | 0.09                     | 0.55               | 5.50               | 6.47                                                                     | 13.79    | 5.94%                                   |
| Kirklees   | 0.92               | 1.88               | 0.12                     | 1.34               | 11.13              | 13.70                                                                    | 29.09    | 6.37%                                   |
| Pendle     | 0.11               | 0.43               | 0.08                     | 0.19               | 2.38               | 2.28                                                                     | 5.47     | 5.59%                                   |
| Rossendale | 0.00               | 0.32               | 0.04                     | 0.15               | 2.25               | 1.84                                                                     | 4.60     | 5.97%                                   |

**Tables A30: Estimated Domestic and Commercial Heat Demand for 2010 and 2020**

| Authority                                                                                                                                                                                                                                | Households in Authority Area in 2010* | 2010 Domestic Heat consumption (MW)** | 2010 Industry and Services Consumption (MW)*** | 2010 Total Heat Demand (MW) | 12% of Total 2010 Heat Demand (MW) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|------------------------------------------------|-----------------------------|------------------------------------|
| Burnley                                                                                                                                                                                                                                  | 40,629                                | 65.4                                  | 30.1                                           | 95.5                        | 11.46                              |
| Calderdale                                                                                                                                                                                                                               | 92,119                                | 148.2                                 | 68.3                                           | 216.6                       | 25.99                              |
| Kirklees                                                                                                                                                                                                                                 | 177,087                               | 285.0                                 | 131.3                                          | 416.3                       | 49.96                              |
| Pendle                                                                                                                                                                                                                                   | 39,762                                | 64.0                                  | 29.5                                           | 93.5                        | 11.22                              |
| Rossendale                                                                                                                                                                                                                               | 30,550                                | 49.2                                  | 22.7                                           | 71.8                        | 8.62                               |
| *Based on wastedataflow.org                                                                                                                                                                                                              |                                       |                                       |                                                |                             |                                    |
| **Based on a household consuming 0.00161 MW per year on space heating from national figures at <a href="http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=7287">http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=7287</a> |                                       |                                       |                                                |                             |                                    |
| ***Based on national ratio of domestic to industrial and service energy used for space heating i.e. 2.17 times more energy was used in the domestic sector compared to the industrial and services sectors (DECC Website)                |                                       |                                       |                                                |                             |                                    |

| Authority                                                                                    | Households in Authority Area in 2020**** | 2020 Domestic Heat consumption (MW)* | 2020 Industry and Services Consumption (MW)** | 2020 Total Heat Demand (MW) | 12% of Total 2020 Heat Demand (MW) |
|----------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------|-----------------------------------------------|-----------------------------|------------------------------------|
| Burnley                                                                                      | 41,929                                   | 67.5                                 | 31.1                                          | 98.6                        | 11.83                              |
| Calderdale                                                                                   | 98,819                                   | 159.0                                | 73.3                                          | 232.3                       | 27.88                              |
| Kirklees                                                                                     | 194,087                                  | 312.3                                | 143.9                                         | 456.3                       | 54.75                              |
| Pendle                                                                                       | 41,662                                   | 67.0                                 | 30.9                                          | 97.9                        | 11.75                              |
| Rossendale                                                                                   | 32,770                                   | 52.7                                 | 24.3                                          | 77.0                        | 9.24                               |
| **** based on 2010 household numbers plus the households required to be built under the RSSs |                                          |                                      |                                               |                             |                                    |

**Table A31: Additional Housing required by 2020**

| Authority  | Additional Houses Required Under RSS by 2020 |
|------------|----------------------------------------------|
| Burnley    | 1,300                                        |
| Calderdale | 6,700                                        |
| Kirklees   | 17,000                                       |
| Pendle     | 1,900                                        |
| Rossendale | 2,220                                        |

**Table A8: Total Theoretical RLC Heating Maximum Generation (MW)**

|              | Energy Crops                          | Waste Wood   | Farm Anaerobic Digestion | Woodfuel    | Solar Energy | Potential for Domestic and commercial Ground Source Heating |               |
|--------------|---------------------------------------|--------------|--------------------------|-------------|--------------|-------------------------------------------------------------|---------------|
| Authority    | 100% of Grade Three Agricultural Land |              |                          |             |              | Total Maximum Uptake (MW)                                   | SUM           |
| Burnley      | 5.11                                  | 1.73         | 0.50                     | 0.21        | 8.75         | 17.21                                                       | 33.52         |
| Calderdale   | 10.36                                 | 3.72         | 1.17                     | 1.10        | 19.25        | 44.39                                                       | 79.99         |
| Kirklees     | 37.26                                 | 7.52         | 1.57                     | 2.68        | 39.00        | 83.33                                                       | 171.36        |
| Pendle       | 4.35                                  | 1.73         | 1.13                     | 0.37        | 8.50         | 15.50                                                       | 31.58         |
| Rossendale   | 0.00                                  | 1.27         | 0.55                     | 0.31        | 7.75         | 17.25                                                       | 27.13         |
| <b>Total</b> | <b>57.09</b>                          | <b>15.97</b> | <b>4.92</b>              | <b>4.67</b> | <b>83.25</b> | <b>177.68</b>                                               | <b>343.58</b> |

**Table A10: Total Pragmatic RLC Heating Generation (MW)**

|              | Energy Crops                        | Waste Wood  | Farm Anaerobic Digestion | Woodfuel    | Solar Energy | Potential for Domestic and commercial Ground Source Heating |               |
|--------------|-------------------------------------|-------------|--------------------------|-------------|--------------|-------------------------------------------------------------|---------------|
| Authority    | 5% of Grade Three Agricultural Land |             |                          |             |              | Total Pragmatic Uptake (MW)                                 |               |
| Burnley      | 0.24                                | 0.87        | 0.08                     | 0.21        | 5.00         | 16.00                                                       | 22.40         |
| Calderdale   | 0.52                                | 1.86        | 0.18                     | 1.10        | 11.00        | 38.50                                                       | 53.15         |
| Kirklees     | 1.85                                | 3.76        | 0.24                     | 2.68        | 22.25        | 73.00                                                       | 103.77        |
| Pendle       | 0.22                                | 0.86        | 0.17                     | 0.37        | 4.75         | 13.25                                                       | 19.62         |
| Rossendale   | 0.00                                | 0.64        | 0.08                     | 0.31        | 4.50         | 16.00                                                       | 21.52         |
| <b>Total</b> | <b>2.83</b>                         | <b>7.99</b> | <b>0.74</b>              | <b>4.67</b> | <b>47.50</b> | <b>156.75</b>                                               | <b>220.47</b> |

**Table A32: Heat Scenario - Moderate solar heat uptake - High GSH**

|              | Energy Crops                        | Waste Wood  | Farm Anaerobic | Woodfuel    | Solar Energy | Potential for GSH           |               | Percentage of |
|--------------|-------------------------------------|-------------|----------------|-------------|--------------|-----------------------------|---------------|---------------|
| Authority    | 5% of Grade Three Agricultural Land |             |                |             |              | Total Pragmatic Uptake (MW) | Totals        | 2020 Demand   |
| Prop of prag | 1                                   | 1           | 1              | 1           | 0.2          | 1                           |               |               |
| Burnley      | 0.24                                | 0.87        | 0.08           | 0.21        | 1.00         | 16.00                       | 18.40         | 18.67%        |
| Calderdale   | 0.52                                | 1.86        | 0.18           | 1.10        | 2.20         | 38.50                       | 44.35         | 19.09%        |
| Kirklees     | 1.85                                | 3.76        | 0.24           | 2.68        | 4.45         | 73.00                       | 85.97         | 18.84%        |
| Pendle       | 0.22                                | 0.86        | 0.17           | 0.37        | 0.95         | 13.25                       | 15.82         | 16.16%        |
| Rossendale   | 0.00                                | 0.64        | 0.08           | 0.31        | 0.90         | 16.00                       | 17.92         | 23.27%        |
| <b>Total</b> | <b>2.83</b>                         | <b>7.99</b> | <b>0.74</b>    | <b>4.67</b> | <b>9.50</b>  | <b>156.75</b>               | <b>182.47</b> |               |

N.B. Proportion of Prag = the proportion of the estimated pragmatic generation potential stated in Table A10 utilised under the scenario

**Table A33: Heat Scenario - Moderate solar heat uptake - low GSH**

|              | Energy Crops                        | Waste Wood  | Farm Anaerobic | Woodfuel    | Solar Energy | Potential for GSH                |              | Percentage of |
|--------------|-------------------------------------|-------------|----------------|-------------|--------------|----------------------------------|--------------|---------------|
| Authority    | 5% of Grade Three Agricultural Land |             |                |             |              | Off grid uptake (see Table A 29) | Totals       | 2020 Demand   |
| Prop of prag | 1                                   | 1           | 1              | 1           | 0.2          |                                  |              |               |
| Burnley      | 0.24                                | 0.87        | 0.08           | 0.21        | 1.00         | 1.81                             | 4.21         | 4.27%         |
| Calderdale   | 0.52                                | 1.86        | 0.18           | 1.10        | 2.20         | 6.47                             | 12.32        | 5.30%         |
| Kirklees     | 1.85                                | 3.76        | 0.24           | 2.68        | 4.45         | 13.70                            | 26.67        | 5.85%         |
| Pendle       | 0.22                                | 0.86        | 0.17           | 0.37        | 0.95         | 2.28                             | 4.86         | 4.96%         |
| Rossendale   | 0.00                                | 0.64        | 0.08           | 0.31        | 0.90         | 1.84                             | 3.76         | 4.88%         |
| <b>Total</b> | <b>2.83</b>                         | <b>7.99</b> | <b>0.74</b>    | <b>4.67</b> | <b>9.50</b>  | <b>26.1</b>                      | <b>51.82</b> |               |

**Table A34: Existing Small Scale Wind Turbines for Burnley Council**

| Planning application no. | Site address                                           | Power | x coordinate | y coordinate | Turbine No. | Blade Diameter (m) | Mast Height (m) | Planning Stage          |
|--------------------------|--------------------------------------------------------|-------|--------------|--------------|-------------|--------------------|-----------------|-------------------------|
| APP/2006/1044            | Shay Lane Farm Shay Lane ,BURNLEY, BB10 3PH            | 6kW   | 388,438      | 434,273      | 2           | 5.5m?              | 9m?             | Operational             |
| APP/2009/0332            | The Kestrels Manchester Road ,BURNLEY, BB11 5NT        | 11kW  | 382,892      | 428,735      | 1           | 13                 | 18              | Full permission granted |
| APP/2008/0415            | Far Pasture Farm The Long Causeway ,CLIVIGER, BB10 4RR | 6kW   | 382,892      | 428,735      | 1           | 5.5                | 9.7             | Full permission granted |
| APP/2008/0416            | Middle Pasture Farm Foxstones Lane ,CLIVIGER, BB10 4RS | 6kW   | 388,659      | 430,346      | 1           | 5.5                | 9.7             | Full permission granted |
| APP/2007/0277            | Thorny Bank Farm Hameldon Road ,HAPTON, BB11 5QP       | 5kW   | 379,712      | 429,701      | 1           | 5.4                | 12              | Full permission granted |
| APP/2006/1091            | 28 Kings Drive ,HAPTON, BB12 7DF                       | 1kW   | 379,988      | 432,934      | 1           | 1.75               | n.a.            | Full permission granted |

**Table A35: Sites with Planning Permission for Small Scale Wind Turbine Sites in Calderdale**

| Planning application no. | Site address                                                                                     | Power (kW) | x coordinate | y coordinate | Turbine No. | Mast Height (m) |
|--------------------------|--------------------------------------------------------------------------------------------------|------------|--------------|--------------|-------------|-----------------|
| 06/02435                 | Cinderhill Farm                                                                                  | 5          | 395213       | 424705       | 1           | 4               |
| 06/02506/HSE             | 8 Belcross Drive Claremount HALIFAX West Yorkshire HX6 3AN                                       | 1          | 409754       | 426019       | 1           | 12              |
| 06/02471/FUL             | Land Adjacent To Ivy House Farm Whitley Lane Southowram Halifax West Yorkshire                   | 5          | 411518       | 424334       | 1           | 12              |
| 06/02323/FUL             | Cherry Hall Farm                                                                                 | 10         | 415725       | 425265       | 1           | 15              |
| 06/02241/FUL             | Field Near 2 Prospect View Blackley Elland West Yorkshire                                        | 6          | 410041       | 419938       | 1           |                 |
| 06/01923/FUL             | Land South Of Akroyd Farm Akroyd Lane Pecket Well Hebden Bridge West Yorkshire                   | 6          | 399615       | 428978       | 1           | 9.6             |
| 06/01801/FUL             | Land Adjacent To Wells Bottom Farm Blue Ball Road Ripponden Sowerby Bridge West Yorkshire        | 6          | 402291       | 419841       | 1           | 15              |
| 06/02465                 | Land Adjacent To New Fold Farm Taylor Lane Bradshaw Halifax West Yorkshire                       | 5          | 408227       | 430918       | 1           | 12              |
| 07/00517                 | Field Adjacent To Higher Mount Farm Kebs Road Shore Todmorden                                    | 5          | 391490       | 427529       | 1           | 12              |
| 07/00633                 | Commons Farm Kebs Road Shore Todmorden OL14 8SD                                                  | 20         | 391230       | 427233       | 1           | 18              |
| 07/01210                 | Land Adjacent To Old Town Reservoir Off Parrock Lane Old Town Hebden Bridge West Yorkshire       | 15         | 400146       | 428656       | 1           | 15              |
| 07/00313                 | Land At Woolrow Farm Woolrow Lane Brighouse West Yorkshire HD6 4JN                               | 6          | 415104       | 424449       | 1           | 15              |
| 07/00559                 | Land Adjacent To Haven Farm Long Causeway Luddendenfoot Halifax West Yorkshire                   | 5          | 402381       | 424679       | 1           | 12              |
| 07/01802                 | Field Adjacent To Moorhall Farm Cottage Moorcock Road Blackshawhead Hebden Bridge West Yorkshire | 20         | 394554       | 428239       | 1           | 15              |

| Planning application no. | Site address                                                                             | Power (kW) | x coordinate | y coordinate | Turbine No. | Mast Height (m) |
|--------------------------|------------------------------------------------------------------------------------------|------------|--------------|--------------|-------------|-----------------|
| 07/01865                 | Site Of B & Q Shroggs Road Halifax West Yorkshire HX3 5HL                                | 6          | 408415       | 425840       | 3           | 15              |
| 07/02172                 | Sunny View Kebs Road Shore Todmorden OL14 8SB                                            | 5          | 392524       | 427254       | 1           | 15              |
| 07/01958                 | Field Adjacent To Far Moorside Farm Stacks Lane Cragg Vale Hebden Bridge West Yorkshire  | 6          | 401691       | 424100       | 1           | 15              |
| 07/02604                 | Field Adjacent To Higher Hawstones Barn Kebs Road Shore Todmorden                        | 5          | 392355       | 427327       | 1           | 12              |
| 08/00086                 | Field Adjacent To The Old Farmhouse 4 Little Hollin Hey Hebden Bridge West Yorkshire     | 15         | 401281       | 425145       | 1           | 15.5            |
| 08/00219                 | Field Adjacent To Lower Moor Farm Cote Road Ripponden Sowerby Bridge West Yorkshire      | 6          | 403192       | 420011       | 1           | 9               |
| 08/00246                 | Land North Of Kirk Lane Quarries Kirk Lane Hipperholme Halifax West Yorkshire            | 10         | 412080       | 425743       |             | 12              |
| 08/00497                 | Field Opposite Land Bottom Farm Long Causeway Blackshawhead Hebden Bridge West Yorkshire | 10         | 395001       | 427456       | 1           | 12              |
| 08/00562                 | Field Rear Of Moor End Farm Steep Lane Sowerby Sowerby Bridge West Yorkshire             | 6          | 402178       | 423478       | 1           | 9               |
| 08/01418                 | Field Adjacent To Round Hill Farm New Road Cragg Vale Hebden Bridge West Yorkshire       | 6          | 400813       | 421882       | 1           | 9               |
| 08/01797                 | Lower Giles Hill Farm South Lane Shelf Halifax West Yorkshire HX3 7TW                    | 20         | 411729       | 429543       | 2           | 18              |
| 08/01861                 | Tesco Stores Haugh Shaw Road Halifax West Yorkshire HX1 3TU                              | 6          | 408208       | 424282       |             | 10.6            |
| 08/01911/FUL             | Land At Upper Flat Head Ripponden Sowerby Bridge West Yorkshire                          | 6          | 403122       | 419802       | 1           | 15              |

| Planning application no. | Site address                                                                                   | Power (kW) | x coordinate | y coordinate | Turbine No. | Mast Height (m) |
|--------------------------|------------------------------------------------------------------------------------------------|------------|--------------|--------------|-------------|-----------------|
| 08/01436/FUL             | Land Adjacent Warcock Hill Barn Long Causeway Blackshawhead Hebden Bridge West Yorkshire       | 10         | 394934       | 427602       | 2           | 12              |
| 08/02023/FUL             | Old Hold Farm Latham Lane Wadsworth Hebden Bridge West Yorkshire HX7 8TG                       | 5          | 400608       | 428876       | 1           | 12              |
| 08/01841/FUL             | Field Near Hole Bottom Farm Thornhills Beck Lane Brighouse West Yorkshire                      | 5          | 414958       | 424109       | 1           | 12              |
| 08/01695                 | Fields Farm Green Lane Heptonstall Hebden Bridge West Yorkshire HX7 7PD                        | 6          | 397989       | 428454       | 1           | 9               |
| 08/01600                 | Field Rear Of Harefield Farm 907 Halifax Road Hartshead Moor Cleckheaton West Yorkshire        | 10         | 416281       | 424891       | 1           | 11              |
| 08/01325                 | Field Adjacent To New Springs Farm Thacker Gate Road Sowerby Sowerby Bridge West Yorkshire     | 5          | 402502       | 423839       | 1           | 15              |
| 08/01295                 | Land West Of Blackshaw Clough Farm Blackshaw Clough Road Soyland Sowerby Bridge West Yorkshire | 6          | 402294       | 420493       | 1           | 15              |
| 09/00068/FUL             | Wood Mill Halifax Road Todmorden OL14 6EE                                                      | 1          | 396699       | 425863       | 1           | 4               |
| A-10/00089               | Land At Thornton Park Farm                                                                     | 11         | 402,019      | 421350       | 1           | 18              |
| 09/01318                 | Badgerfields Farm Badger Lane Blackshaw Head Hebden Bridge HX7 7JX                             | 10         | 396816       | 427591       | 1           | 15              |
| 09/01285                 | Row Farm Row Lane Sowerby Sowerby Bridge West Yorkshire HX6 1JP                                | 6.9        | 403910       | 423446       | 1           | 15              |
| 09/00929                 | Higher Earnshaw Water Farm Long Causeway Blackshaw Head HEBDEN BRIDGE HX7 7JB                  | 10         | 396816       | 427591       | 1           | 18              |

| Planning<br>application no. | Site address                                                                            | Power<br>(kW) | x<br>coordinate | y<br>coordinate | Turbine No. | Mast<br>Height (m) |
|-----------------------------|-----------------------------------------------------------------------------------------|---------------|-----------------|-----------------|-------------|--------------------|
| 08/01264                    | Blackshaw Royd Barn Marsh Lane<br>Blackshawhead Hebden Bridge West<br>Yorkshire HX7 7JU | 5             | 396555          | 426956          | 1           | 15                 |

**Table A36: Existing Small Scale Wind Turbines for Kirklees Council**

| Planning application no. | Site address                                                                                         | Power | x coordinate | y coordinate | Turbine No. | Blade Diameter (m) | Mast Height (m)       |
|--------------------------|------------------------------------------------------------------------------------------------------|-------|--------------|--------------|-------------|--------------------|-----------------------|
| 1989/01040               | Longley Farm/Off, Dunford Road, Holmfirth                                                            |       | 414790       | 406180       | 2           | n/a                | n/a                   |
| 2002/93224               | FAR VIEW, 1/3 HALIFAX ROAD, SCAPEGOAT HILL, HUDDERSFIELD, HD7 4NS                                    | 6kW   | 408532       | 416211       | 1           | n/a                | n/a                   |
| 2003/91859               | SCHOOL OF CARING, HUDDERSFIELD TECHNICAL COLLEGE, BLUE BELL HILL, TAYLOR HILL, HUDDERSFIELD, HD4 6LE |       | 413780       | 414780       | 1           | n/a                | n/a                   |
| 2004/95066               | DEIGHTON CENTRE, DEIGHTON ROAD, DEIGHTON, HUDDERSFIELD.                                              |       | 416050       | 419560       | 1           | n/a                | 15                    |
| 2004/95076               | CIVIC CENTRE I, MARKET STREET, HUDDERSFIELD.                                                         | 6kW   | 414320       | 416410       | 3           | n/a                | n/a                   |
| 2004/95106               | SPEN VALLEY SPORTS COLLEGE, ROBERTTOWN LANE, LIVERSEDGE, WF15 7LX.                                   |       | 419980       | 423150       | 1           | n/a                | n/a                   |
| 2005/91870               | GOAT HILL FARM,BRIESTFIELD ROAD,BRIESTFIELD,DEWSBURY,WF12 0NU                                        |       | 422550       | 416500       | 1           | 5.6                | 9                     |
| 2005/93370               | DEIGHTON CENTRE,DEIGHTON ROAD,DEIGHTON,HUDDERSFIELD                                                  |       | 416050       | 419560       | 2           |                    | n/a                   |
| 2006/91257               | GOAT HILL END FARM,BURNT PLATTS LANE,SLAITHWAITE,HUDDERSFIELD,HD7 5UZ                                |       | 405865       | 414793       | 1           | 1.75               | 9                     |
| 2007/90384               | THE HAYBARN,OLDFIELD,HONLEY,HOLMFIRTH,H D9 6RL                                                       |       | 413480       | 410330       | 1           | 5.5                | up to 3.75 above roof |
| 2007/91418               | HAWTHORNE COTTAGE,21 HEALEY HOUSE,NETHERTON,HUDDERSFIELD,HD4 7DG                                     |       | 411780       | 412260       | 1           | 5.5                | up to 3.75 above roof |
| 2007/91606               | ADJACENT TO,THE BARN,OFF MOORSIDE LANE,WEST TOP,SLAITHWAITE,HD7 5UU                                  |       | 406952       | 415191       | 1           | 5.5                | 9                     |
| 2007/92383               | SPARTH TOP COTTAGE,CLIFF ROAD,AUSTONLEY,HOLMFIRTH,HD9 3RJ                                            |       | 411500       | 407729       | 1           | 5.5                | 9                     |
| 2007/93435               | SLACK FARM,COP HILL SIDE,SLAITHWAITE,HD7 5XA                                                         |       | 405821       | 413589       | 1           | 5.5                | 9                     |

| Planning application no. | Site address                                                          | Power | x coordinate | y coordinate | Turbine No. | Blade Diameter (m) | Mast Height (m) |
|--------------------------|-----------------------------------------------------------------------|-------|--------------|--------------|-------------|--------------------|-----------------|
| 2007/93448               | HEYSIDE FARM,WINDMILL LANE,UPPER CUMBERWORTH,HUDDERSFIELD,HD8 8YD     |       | 418160       | 407081       | 1           | 5.5                | 15              |
| 2008/92128               | RYDAL BANK,LIPHILL BANK ROAD,HOLMFIRTH,HD9 2LQ                        |       | 412910       | 407803       | 1           | 1.5                | 5               |
| 2008/92462               | ADJACENT TO,LANDS FARM,CLIFFE LANE,GOMERSAL,CLECKHEATON,BD19 4EU      |       | 419450       | 426460       | 1           | 11?                | 12              |
| 2008/92753               | NEW HALL FARM,WAKEFIELD ROAD,GRANGE MOOR,HUDDERSFIELD,WF4 4BG         |       | 422550       | 415390       | 1           | 5.5                | 9               |
| 2008/92948               | WEST ROYD FARM,MARSH LANE,SHEPLEY,HUDDERSFIELD,HD8 8AY                |       | 418300       | 409077       | 1           | n/a                | 9               |
| 2008/93198               | Land Adjacent, 43, Deanhouse, Holmfirth, HD3 3TD                      |       | 413895       | 410137       | 1           | 5.4                | 12              |
| 2008/94227               | Land adjacent to, Hill House, Hill, Holmfirth, HD9 3BN                |       | 413818       | 408462       | 1           | 5.5                | 15              |
| 2008/94241               | Chidswell Farm, Chidswell Lane, Shaw Cross, Dewsbury, WF12 7SW        |       | 426745       | 422945       | 2           | 10                 | 18              |
| 2009/90365               | New Hall Farm, Wakefield Road, Grange Moor, Huddersfield, WF4 4BG     |       | 422611       | 415282       | 1           | 5.5                | 15              |
| 2009/91059               | The Tetleys Stadium, Owl Lane, Shaw Cross, Dewsbury, WF12 7RH         |       | 426316       | 422708       | 1           | 4.3                | 11              |
| 2009/91256               | Oldfield Road Farm, Oldfield Road, Honley, Holmfirth, HD9 6RL         |       | 413759       | 410699       | 1           | 5.5                | 12              |
| 2009/91576               | Land rear of, 11, Halifax Road, Scapegoat Hill, Huddersfield, HD7 4NS |       | 408282       | 416314       | 2           | 13.4               | 18.3            |

**Table A37: Existing Small Scale Wind Turbines for Pendle Council**

| Planning application no. | Site address                       | Year installed | Power / Size | x coordinate | y coordinate |
|--------------------------|------------------------------------|----------------|--------------|--------------|--------------|
| 13/06/0278P              | Pendle Vale College, Oxford Rd     | 2008/09        | 6kW, 10m     | 387293       | 438485       |
| 13/06/0736P              | The Coach House, Warley Wise Lane  | 2007/08        | 5kW, 12m     | 393276       | 443404       |
| 13/07/0045P              | Herders Inn, Lancashire Moor Road  | 2007/08        | 6kW, 10m     | 395034       | 438865       |
| 13/07/0802P              | Far New Field Edge Farm, Edge Lane | 2008/09        | 5kW, 12m     | 386077       | 445445       |

**Table A38: Existing Small Scale Wind Turbines for Rossendale Borough Council**

| Planning application no. | Site address                                                                    | Power                   | x coordinate | y coordinate | Turbine No. | Blade Diameter (m) | Mast Height (m) |
|--------------------------|---------------------------------------------------------------------------------|-------------------------|--------------|--------------|-------------|--------------------|-----------------|
| 2008/0465                | Lower Faribanks Farm, Goodshaw Fold Road, Loveclough BB4 8UF                    | 6kW                     | 380,370      | 426,115      | 1           | 6                  | 9               |
| 2009/0175                | Sunnyside (Hen Head Farm) Kings Highway Accrington BB5 2DL                      | Iskra AT5-1 5kW         | 378,958      | 426,809      | 1           | 5.4                | 15              |
| 2009/0215                | Brow Edge Farm Cribden Side Haslingden Rossendale BB4 5UB                       | Iskra AT5-1 5kW         | 379,353      | 424,792      | 1           | 5.4                | 15              |
| 2009/0478                | Higher Bridge Clough Farm Coal Pit Lane Waterfoot Rossendale Lancashire BB4 9SB | Proven WT6000 6KW       | 384,681      | 423,549      | 1           |                    | 15              |
| 2010/0027                | Under Brow Farm Cribden Side Haslingden Rossendale BB4 5UD                      | 11kW                    | 379,475      | 424,529      | 1           |                    | >25             |
| 2010/0230                | Trickling Water Barn Great House Avenue Helmshore Rossendale BB4 4AL            | 6kW                     | 377,064      | 420,372      | 1           |                    | 9               |
| 2010/0049                | Hoyle Dean Farm Coal Pit Lane Rossendale BB4 9SA                                | Evance Iskra R9000/ 5kW | 384,564      | 424,527      | 1           | 5.4                | 15              |
| 2010/0086                | End Cottage Tippet Farm Cowpe BB4 7AE                                           | 5kW                     | 383,327      | 420,979      | 1           |                    | 15              |
| 2010/0096                | Higher Trough Farm Eagley Bank Shawforth Rochdale Lancs OL12 8XE                | 5kW                     | 389,204      | 420,553      | 1           |                    | 15              |
| 2010/0172                | 3 Swinshaw Cottages, Loveclough BB4 8RA                                         | 6kW                     | 381,497      | 426,800      | 1           |                    | 10              |
| 2009/0620                | Dean Head House, Bacup OL13 8RF                                                 | 2kW                     | 386,544      | 426,063      | 1           |                    | 9               |

**Table A37: Existing Small Scale Wind Turbines for Pendle Council**

| Planning application no. | Site address                       | Year installed | Power / Size | x coordinate | y coordinate |
|--------------------------|------------------------------------|----------------|--------------|--------------|--------------|
| 13/06/0278P              | Pendle Vale College, Oxford Rd     | 2008/09        | 6kW, 10m     | 387293       | 438485       |
| 13/06/0736P              | The Coach House, Warley Wise Lane  | 2007/08        | 5kW, 12m     | 393276       | 443404       |
| 13/07/0045P              | Herders Inn, Lancashire Moor Road  | 2007/08        | 6kW, 10m     | 395034       | 438865       |
| 13/07/0802P              | Far New Field Edge Farm, Edge Lane | 2008/09        | 5kW, 12m     | 386077       | 445445       |

**Table A38: Existing Small Scale Wind Turbines for Rossendale Borough Council**

| Planning application no. | Site address                                                                    | Power                   | x coordinate | y coordinate | Turbine No. | Blade Diameter (m) | Mast Height (m) |
|--------------------------|---------------------------------------------------------------------------------|-------------------------|--------------|--------------|-------------|--------------------|-----------------|
| 2008/0465                | Lower Faribanks Farm, Goodshaw Fold Road, Loveclough BB4 8UF                    | 6kW                     | 380,370      | 426,115      | 1           | 6                  | 9               |
| 2009/0175                | Sunnyside (Hen Head Farm) Kings Highway Accrington BB5 2DL                      | Iskra AT5-1 5kW         | 378,958      | 426,809      | 1           | 5.4                | 15              |
| 2009/0215                | Brow Edge Farm Cribden Side Haslingden Rossendale BB4 5UB                       | Iskra AT5-1 5kW         | 379,353      | 424,792      | 1           | 5.4                | 15              |
| 2009/0478                | Higher Bridge Clough Farm Coal Pit Lane Waterfoot Rossendale Lancashire BB4 9SB | Proven WT6000 6KW       | 384,681      | 423,549      | 1           |                    | 15              |
| 2010/0027                | Under Brow Farm Cribden Side Haslingden Rossendale BB4 5UD                      | 11kW                    | 379,475      | 424,529      | 1           |                    | >25             |
| 2010/0230                | Trickling Water Barn Great House Avenue Helmshore Rossendale BB4 4AL            | 6kW                     | 377,064      | 420,372      | 1           |                    | 9               |
| 2010/0049                | Hoyle Dean Farm Coal Pit Lane Rossendale BB4 9SA                                | Evance Iskra R9000/ 5kW | 384,564      | 424,527      | 1           | 5.4                | 15              |
| 2010/0086                | End Cottage Tippet Farm Cowpe BB4 7AE                                           | 5kW                     | 383,327      | 420,979      | 1           |                    | 15              |
| 2010/0096                | Higher Trough Farm Eagley Bank Shawforth Rochdale Lancs OL12 8XE                | 5kW                     | 389,204      | 420,553      | 1           |                    | 15              |
| 2010/0172                | 3 Swinshaw Cottages, Loveclough BB4 8RA                                         | 6kW                     | 381,497      | 426,800      | 1           |                    | 10              |
| 2009/0620                | Dean Head House, Bacup OL13 8RF                                                 | 2kW                     | 386,544      | 426,063      | 1           |                    | 9               |