Planning Application ref: R10/2303
(Proposed windfarm at Cestersover Farm, CV23 0QP)

Objections of Churchover Parish Council

July 2011

Preface

EXTRACTS FROM RECENT PLANNING INSPECTORS' APPEAL DECISIONS, REFUSING COMPARABLE WINDFARMS IN COMPARABLE LOCATIONS

"… the outlook from the whole of this small community would be dominated by their unavoidable presence, whether seen as a complete cluster, individually or just in glimpses of moving blades. In this case it is the spread of the turbines rather than their height that would, in my judgment, be so visually invasive as to make the settlement a less satisfactory place in which to live than it is now..."

"…unavoidable and, in my estimation, unpleasantly overwhelming presence of rotating turbines spreading both horizontally and vertically across a substantial proportion of their main outward field of view. By comparing the turbine spacing to the distance from these properties, I again liken that to conveying the impression of living in or at a wind farm, rather than simply having a turbine cluster close by…"

"…a unique and particularly compelling importance attaches to maintaining the peace and tranquillity of [churches'] *surrounds and the quality of views to, from and of them that are religiously, socially, architecturally, historically or visually important to the community…"*

"…turbines this near could, I consider, be found so pervasive as to disrupt those seeking solace in quiet contemplation, particularly directly after bereavement, and I would come to a similar view whether exercising my Section 66(1) duty or not…"

"…and with little or nothing by way of intervening screening, it is my conclusion that living conditions would be demonstrably harmed by significant and over-dominant visual impact..."

"…the low but clearly identifiable tower of the Church is a significant landmark in itself, enabling the eye to alight easily on other visible parts of the settlement and providing a clear reference for the scale of buildings within it. The turbine cluster would effectively become a broad and eye-catching backdrop to this charmingly arcadian scene. The contrast in height, modernity and character between these very different structures in such close juxtaposition would, I consider, be jarring…"

"...would result in the loss of prominence of the spire from the surrounding area. The proposed turbine would be dominant in views of the Church spire…, which would be lost behind the turbine or at least dwarfed..."

"… its vertical scale and blade sweep would have an harmful impact on, and fail to preserve the setting of the Church contrary to the general duty in section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990…"

"…I conclude that this tall, rotating structure would be overwhelming, obtrusive and unavoidable to the residents of these properties such that their amenities would be unacceptably impaired..."

"…I consider the panorama of rotating turbines would be overwhelming, obtrusive and unavoidable to the residents of these properties..."

"… the consequences here would amount to far more than a loss of a view; the outcome would inevitably be the creation of unacceptable living conditions..."

1.0 Introduction

1.1 At its meeting on 22 June 2011, Churchover Parish Council (CPC) resolved to OBJECT to the above planning application, on the grounds set out below.

1.2 This objection has been formulated in the light of the planning application as received. Councillors had previously attended public exhibitions and other meetings in 2010, some organised by the Applicant (Scottish & Southern Energy [SSE]), and held in Churchover village hall on various dates between June and October 2010, at which SSE exhibited emerging proposals. On 13 and 17 July 2010 "drop in" events were arranged by CPC to allow residents to discuss in confidence their views about the broad proposals set out by SSE, plus another informal meeting held in the village hall, addressed by an invited speaker. The result of those consultation exercises was an overwhelming majority of opinion (>90%) opposing any windfarm having the general features exhibited by SSE's proposals.

1.3 CPC has also had regard to views expressed at meetings organised by neighbouring parishes, at meeting addressed by a CPC representative: Harborough Magna, Monks Kirby and Pailton. The planning application area extends beyond Churchover parish and its environmental effects extend still further. This objection is to the totality of the development, regardless of parish, but represents only CPC views.

1.4 Once the planning application was registered, on 22 June 2011 CPC arranged a second village meeting to discuss the specific proposals, rather than the general principles previously exhibited by SSE. That meeting, attended by 84 people, resolved 72 to 1 to object, with 11 neutral/abstaining. Of these, CPC residents voted 38 to 1 to object, with 9 neutral/abstaining.

1.5 Churchover also has an action group, Against Subsidised Windfarms Around Rugby (ASWAR), formed to co-ordinate action against the proposed development. ASWAR is not a CPC body, although parish councillors liaise with ASWAR in order to stay abreast of village opinion.

1.6 In summary, CPC objects on the following grounds:

SUMMARY GROUNDS OF OBJECTION

Visual Impact

The proposed development would have an unacceptable visual impact upon residents, walkers and other users of the village and rural environment. The turbines would be as little as 430m from individual dwellings, and 850-1200m from the majority of the 'old' village. They would be as little as 730m from many gardens.

The visual effects of the turbines would be unavoidable and unpleasantly overwhelming, aggravated by their eye-catching rotation. They would occupy a substantial proportion of the main outward field of view of large numbers of properties. Essentially the whole of this small community would be dominated by their unavoidable presence, whether seen as a complete cluster, individually or just in glimpses of moving blades.

As such the development would fail to comply with **PPS1 Delivering Sustainable Development 2005**, paragraphs 1, 3, 4, 5, 17, 19 and 27(ix); **RSS West Midlands 2008** Spatial Strategy Objective paragraph 3.14; **Rugby Borough Local Plan 2006** The Vision, The Strategy, and policies GP1, GP5, E1, E2, E5 and E17; and **Rugby Core Strategy 2011**, Spatial Vision, Spatial Vision 11 and policy CS14.

Heritage Assets

The proposed development would fail to protect and enhance the historic environment or the countryside, destroying the setting of listed buildings and in particular Holy Trinity, by dwarfing its 25m spire with 126.5m windfarms within 850m. A unique and particularly compelling importance attaches to maintaining the peace and tranquillity of the surroundings and the quality of views to, from and of churches that are religiously, socially, architecturally, historically or visually important to the community.

The vertical scale and blade sweep would have a harmful impact on, and fail to preserve the setting of the church, and the conservation area. It would also damage important archaeological features.

As such, it would fail to comply with the **Planning (Listed Buildings & Conservation Areas) Act 1990** s.66 and ss.69-73; **PPS1 Delivering Sustainable Development 2005** paragraphs 5 and17; **PPS5 Planning for the Historic Environment 2010** policies HE1.3, 1.3, 7.2, 7.4, 9.1, 9.2, 9.4, 9.6 and 10.1; **RSS West Midlands 2008,** policies QE5 and QE6; **Rugby Borough Local Plan 2006** policy E17; and **Rugby Core Strategy 2011** Spatial Vision, Chapter 6 and policy CS14.

Landscape

The development would produce an unacceptable change in the landscape, and far exceed the landscape capacity of the area as assessed independently by the White report (adopted by the Borough Council as material to planning decisions). In cumulation with two other windfarm developments, totalling 15 turbines and all easily visible from Churchover, there would be a domination of 180^0 of landscape around the village by turbines, destroying landscape character, quality and the amenity of daily life. It would also conflict with Green Belt policy and no very special circumstances have been shown.

As such, the development would be contrary to **PPS1 Delivering Sustainable Development 2005** paragraphs 1, 4, 17, 19 and 27(ix); **PPG2 Green Belts 1995** paragraphs 3.2 and 3.15; **PPS7 Renewable Energy** Key Principle 1, paragraphs 15 and 24 ;**RSS West Midlands 2008** Spatial Strategy Objective paragraph 3.14; **Rugby Borough Local Plan 2006** The Vision, The Strategy and policies GP1, GP5 , E1, E2, E5 and E17; and **Rugby Core Strategy 2011** Spatial Vision, Spatial Vision 11 and policy CS14.

Other environmental impacts

The development fails to ensure an acceptable noise climate both indoors and outdoor at dwellings as close as 430m (with micro-siting) and no planning condition to secure noise control can be effective. No analysis of low-frequency noise (for which Churchover is already at proven risk) has been presented, nor has any health impact analysis been undertaken. Noise (and certain other) planning conditions are likely to fail the tests of **Circular 11/95** and yet, without them, no such development could be acceptable. They would therefore become unenforceable and provide no protection for residents.

The impacts on public rights of way will be unacceptable, turbines being as close as 75m from PROWs. Other peaceful enjoyment of the countryside will be interfered with or prevented, including equestrianism and angling.

The "temporary" nature of the development, 25 years, is illusory, cannot be ensured and is therefore not a material planning consideration.

The development is not consistent with Government objectives to maintain reliable and competitive energy supplies, nor is it viable as it depends solely on subsidy. As such, it fails all the fundamental tests of **PPS22.** It will deliver no employment after construction, and virtually none during it.

Overall, Churchover Parish Council concludes that the need for the development is minimal and is clearly outweighed by its adverse environmental impacts. As such, planning permission should be refused.

1.7 The full grounds are set out below. The objection is structured in the following order:

2 Visual Impact

3 Heritage Assets

4 Landscape Impact

5 Other Environmental Impacts

6 Impacts of Associated Infrastructure

7 Compliance with PPS22

8 Need and Viability

1.8 This order does not imply any hierarchy of importance, but simply seeks to create a logical structure. The objection looks first at the various impacts associated with the wind turbines themselves and then considers those impacts associated with the ancillary/infrastructure elements of the proposal. It then reviews compliance with PPS22 and finally considers need and viability which are both PPS22 and more general imperatives. In each section, an introductory summary reference to compliance with relevant law and development plan policy is given, followed by the detailed objection.

2.0 Visual Impact Assessment (VIA)

SUMMARY ASSESSMENT AGAINST LEGAL REQUIREMENTS AND DEVELOPMENT PLAN POLICIES

PPS1 Delivering Sustainable Development 2005 – fails to comply with paragraphs 1 (does not protect and enhance historic environment not conserve countryside), 3 (conflicts with definition of sustainable development by preventing present generation meeting its own needs, and compromises the ability of future generations to meet their needs), 4 (effective protection of the environment), 5 (protect and enhance quality and character of the countryside and existing communities), 17 (fails to protect and enhance the environment, fails to maintain or improve the local environment), 19 (does not avoid significant adverse impacts on the environment) and 27(ix) (does not enhance as well as protect historic environment and landscape character.

RSS West Midlands 2008 – fails to comply with Spatial Strategy Objective paragraph 3.14, to conserve and enhance quality of environment across the region.

Rugby Borough Local Plan 2006 – fails to comply with The Vision (does not take care of the environment, or enhance the green areas around Rugby), The Strategy (does not maintain the Green Belt, nor enhance environmental and cultural assets), and policies GP1 (not integrated with any settlement; not attractive nor an appropriate transition with the countryside; does not respect contribution of open land to amenity), GP5 (causes material harm from renewable energy to residential amenity and the environment), E1 (fails to preserve character of the countryside), E2 (is an inappropriate development in the Green Belt), E5 (does not respect and enhance character of the area, damage or destroy features which contribute to character of local area, and are valued by the community), E17 (does not protection of historic landscape),

Rugby Core Strategy 2011 – fails to comply with Spatial Vision (the development will not protect and enhance the area), Spatial Vision 11 (does not protect and enhance natural and historic environment), and policy CS14 (fails to protect green infrastructure including open countryside, heritage).

Introduction

2.1 VIA is concerned with the immediate impacts of development upon the visual quality of local receptors such as Churchover, in terms of impacts upon primarily residents and users of the land. This is a narrower focus than, but closely connected with, wider landscape, cultural, social and heritage issues, which are examined in Sections 3 and 4.

Detailed objection

2.2 The 9 turbines are nominally located at distances ranging from 850m to 1200m from the main areas of the village and less than 500m from isolated dwellings elsewhere in the Swift Valley. (This ignores the proposed 50m "micro-siting" allowance which has to be presumed to reduce the above distances by 50m).

2.3 The 'old' village itself has some 67 dwellings as follows, all between 850 and 1200m from the nearest turbine:

- Church Street (31 dwellings)
- The Green (2 dwellings and the village pub, The Haywaggon, which is also residential[1])
- School Street (25 dwellings)
- Old Rectory Close (8 dwellings)

2.4 Just beyond the old village lie the more recent houses, 1250-1320m from the nearest turbine – Greens Close (6 dwellings) and Trusteel Houses (12 dwellings), followed by the New Rectory; and, 1950m from the turbines, Coton Road (15 dwellings).

2.5 Beyond the confines of the village there are 2 dwellings at Gibbet Hill (1250-1350m), 1 on Watling Street at Shawell, 3 on Leicester Road, and 4 at Coton House, all in excess of 2500m distant. In addition, there are isolated rural dwellings in other parishes in the Swift Valley which are referred to later.

2.6 The visual impact of the development will, of course, be experienced in different ways, varying according to the location of each dwelling, its orientation, location of its garden, immediate surroundings, etc. By far the worst visual impact upon village dwellings will be experienced by residents in Church Street over distances of 850-950m, with no intervening screening whatever. The situation with the most affected properties is given in the table below. In summary, occupants of many of these

[1] The Haywaggon also has planning consent R09/0316/PACA for reconstruction/extension to provide 10 bedrooms, of which 8 would face directly turbines 7, 8 and 9. A windfarm could inhibit this development and contribute towards loss of the only village pub.

houses will be unable to avoid permanent exposure to the windfarm, (with the nearest turbine 850m distant from most of the dwellings, and 730-850m distant from their garden boundaries), both from inside their houses and their gardens. The rear gardens of these properties are mostly long and narrow, and slope down the valley side, thus granting complete exposure to in several cases the full height of some five of the nine turbines (numbers 5-9). From several properties, three turbines (7-9) will be seen almost in a retreating line over a very narrow arc, one behind the other, giving a chaotic and infuriating melange of movement. No leisure activity in any of these properties' gardens could escape the major adverse visual impact from several turbines.

2.7 In addition to these principally affected, the other properties along the east side of Church Street will be affected, especially in terms of views from gardens, to some degree. Depending upon property, the effect may be visibility of upper areas of blade rotation from bedroom windows, or from gardens. Some partial views of the turbines nearest the A5 will be obtained from these. The following table summarises the effects from the most affected Church Street properties.

	Visibility of turbines from different locations[2]			
PROPERTY	**Rear ground floor**	**Rear bedrooms/ other upstairs**	**Gardens and amenity spaces**	**Overall adverse visual impact**
Church Farm	minor	minor	substantial-major	substantial
Easterly	substantial-major	minor	substantial-major	substantial
Wolford Cottage	substantial-major	substantial	major	major
1-5 Poors Cottages	minor-substantial	minor-substantial	major	major
Chapel House	minor	minor-substantial	substantial	substantial
The Old Stores	minor-substantial	minor-substantial	substantial-major	substantial-major
Eastleigh	minor-substantial	minor-substantial	substantial-major	substantial
Hillcrest	minor-substantial	minor	substantial-major	substantial
Brambles	minor-substantial	minor-substantial	substantial-major	substantial
Long Acre	major	major	major	major
Field View	substantial	major	major	major
Ivy House*	minor-substantial	substantial	minor	substantial
Forge House*	minor-substantial	substantial	minor-substantial	substantial
Mabapa*	major	n/a	major	major
Applegates*	substantial	minor	substantial	substantial

- These properties are on the east side of Church Street so the facades referred to are their front not rear elevations

2.8 The second group of residents to be seriously exposed to the windfarm will be those at the north/east of School Street.

[2] Minor = views of one or two turbines within a wider arc; substantial = concentrated/focused views of several turbines; major = unavoidable and dominating views of one or more turbines. The assessments are based upon worst-case winter periods, with minimum vegetation screening. Use of the term 'minor' does not imply the adverse impact can be disregarded.

2.9 A similar situation obtains for the residents along Lutterworth Road, on the north side (New Rectory House, Adelante and 1-6 Greens Close). Although slightly more distant (1150m) than Church Street, their rear habitable rooms, bedrooms and gardens will all experience substantial visibility of the northern turbines particularly, plus the Gilmorton and Swinford windfarms.

2.10 On the south side of the road (1-12 Trusteel Houses), views will be possible from front gardens and bedrooms, mainly.

2.11 The residents of 1 – 15 Coton Road are some 1950m distant and the effects on them will be more one of landscape damage than looming overbearing predominance. They will, however, be able to see almost the entire windfarm (plus Gilmorton and Swinford) and their views of the village and church spire will be seriously harmed. As the White report makes clear[3]:

"*There are a few small scale foci of which the diminutive church spire at Churchover is the most notable. Wind energy development could diminish this and replace this as a focal point in the landscape*."

2.12 Indeed, it could – and will.

2.13 Isolated properties in the parish will also suffer severe visual intrusion; the Gibbet Hill properties will be worst affected, by uninterrupted views of the Black Spinney turbines (1250-1350m), while New Ashtree Farm (2200m) will experience virtually the entire windfarm.

2.14 Turning to dwellings beyond the parish but within the Swift Valley, the table below summarises their distance from the turbines.

2.15 Of these, the most relevant are probably the closest. One notable example is the new barn conversion 500m (450m with micro-siting) from the nearest turbine. Cestersover and Streetfield farms will experience overwhelming visual intrusion, with separation distances 380 – 440m at minimum or less than four times the height of the turbines (with micro-siting).

[3] White Consultants report, Appendix A, p.10 "Landscape features/foci/landmarks".

Property	**Distance to nearest turbine (m)** (*before* +/- 50m micro-siting)
Harborough Fields Farm (multiple properties)	780
Ford Cottages	1350
Hospital Farm , East Cottage (2 properties)	1900
St Mary's Care Home (56 residents)	1800
Mansard House, The Lodge (2 properties)	1700
Montilo Farm	1400
Pailton Air Traffic station	1300
Chestnut Hill*	650
Stubblemoor*	500
Sunnymeade, Swift Ridge, Four Winds, Willow Cottage (4 properties)	850
Pailton Pastures, The Cow Barn (2 properties)	1050
Walton Lodge Farm	1100
Moorbarns	950
Streetfield Farm (multiple properties?)	490
Cestersover Farm (5 properties)	430-490

- New barn conversions, neither carrying a name; it is unsure which is which and the distances could be reversed

2.16 Cestersover Farm is one of the landowners supporting the proposed windfarm. CPC knows of nothing in guidance which suggests that dwellings owned or occupied by owners, promoters or supporters of environmentally damaging developments can be allowed to experience worse landscape impacts than anyone else[4]. There is no doctrine of relaxing standards in such cases, so far as landscape is concerned[5]. It is therefore the case that a turbine 430m from Cestersover Farm could be as much of a justification for refusing permission on visual impact grounds as if it was an objector's house[6].

2.17 But, even if there were such a doctrine, it would not and could not extend to forcing blight upon the living conditions of farm workers in tied cottages. Cestersover Farm is not one house but five, comprising a main house, a self-contained annex, and

[4] The quarrying industry has been known to argue that tied houses, or houses occupied by employees, should be subject to laxer standards, but that argument has been decisively rejected in every known case.
[5] But, there is a relaxation in relation to noise – discussed below
[6] Note that although there are no binding stand-off distances in the UK between windfarms and dwellings, advisory or encouraged minimum distances for visual reasons are 2000m (Scotland) and 500m (Wales) (Barclay, Christopher: "Wind Farms – Distance from housing", House of Commons Library, standard note SN/SC/5221, 8 January 2010). Stand-off distances for noise reasons are discussed separately, below

three cottages. The latter are not known to be occupied by financial beneficiaries of the development.

2.18 It is therefore entirely false for SSE to say, as they do[7], that they have adopted a "*minimum 500m separation distance from any non involved properties*…" when the 3 non-involved properties at Cestersover Farm, any at Streetfield Farm, and Stubblemoor (at least, and before the +/-50m micro-siting) give the lie to their own statement.

The developer's assessment

2.19 The Environmental Statement (ES) includes a series of photomontages to illustrate which the developer believes would be the landscape and visual impact of the development. Considering first those assessments most relevant to local visual impact, it has to be said that they are completely inadequate and inaccurate[8].

2.20 The first point is that they are all wide-angle landscape format, which is reasonable when considering landscape impact, but fails to reflect visual impact as experience by people. The wide-angle format flattens the view and trivialises its components, while also reducing the perceived heights of turbines. People look at views, the arc of view being typically represented by a 55mm camera lens and do not stand at a point swivelling their heads through 180^{o} or more. A good example is viewpoint 1 (Churchover churchyard, Figure 6.27) which represents an almost impossible view to experience naturally.

2.21 That same Figure also illustrates the importance of viewpoint selection. It will be seen from the wireframe that although all 9 turbines lie within the arc of view, the chosen viewpoint has managed to render almost every one hidden, or nearly so, behind trees and buildings. How far that is accidental need not be pursued. Suffice to say it gives a totally false indication of the visual impact from the centre of Churchover.

[7] Environmental Statement Vol.2, paragraph 4.10.2.1
[8] Inaccurate because none includes the visual impact of shifting any turbine +/- 50m. For local views, that could be a material adverse change from the nominal locations selected by SSE

2.22 The only other relevant viewpoint presented by SSE is Viewpoint 2 (figure 6.28, edge of village) which again fails entirely to indicate the visual impact on the village and, through its wide-angle format, trivialises the views out of the village.

CPC's assessment

2.23 A series of photomontages has been prepared by CPC, and includes examples of the most dominating visual impacts, as well as the wider landscape impacts upon the village setting[9]. They are appended as Figures 1A – 1D, of which Figures 1A and 1E are relevant here.

2.24 Figure 1A illustrates more accurately than does SSE the view from Churchover churchyard; it is taken from SSE's viewpoint 1 but using a 55mm lens and not a very wide angle lens. It proves that if a more typical viewpoint is selected, three turbines 7, 8 and 9 are not hidden behind trees but are in fact very prominent in the view – and would be still more dominant if the viewpoint had been the churchyard extension. Quite simply, SSE's assessment gives no clue about the visual impact experienced within Churchover; Figure 1A gives a much more accurate representation, which could easily have been made still more prominent by choosing a viewpoint in the churchyard extension.

2.25 Figure 1E depicts a recent 70th birthday party in the garden of Field View, and is a wide-angle (28mm) photograph. It illustrates very well how prominent and unavoidable will be the presence of three turbines. Other garden views will be worse, but this is typical.

2.26 How direct views over such short distances, only four or five times the height of the turbines, between dwellings and wind turbines should be judged is illustrated by recent appeal decisions.

2.27 The first (from 2009) is an appeal re the Dover North Windfarm, comprising 5 x 120m turbines[10]. In refusing the appeal the Inspector took an important and commonsense approach to visual impact. Considering certain properties within 800m of three turbines, as would occur at Churchover, the Inspector observed:

[9] These views are created using the 80m high meteorological mast as a reference.
[10] APP/X2220/A/08/2071880

*"The occupiers of these properties too would be faced with the **unavoidable and, in my estimation, unpleasantly overwhelming presence of rotating turbines spreading both horizontally and vertically across a substantial proportion of their main outward field of view. By comparing the turbine spacing to the distance from these properties, I again liken that to conveying the impression of living in or at a wind farm, rather than simply having a turbine cluster close by**."*[11] [CPC emphasis]

2.28 The Inspector reviewed the visual impact upon a number of other properties at similar distances, and noted:

"… ***the outlook from the whole of this small community would be dominated by their unavoidable presence, whether seen as a complete cluster, individually or just in glimpses of moving blades. In this case it is the spread of the turbines rather than their height that would, in my judgment, be so visually invasive as to make the settlement a less satisfactory place in which to live than it is now**."* [CPC emphasis]

2.29 He continued:

"*71. However, in those cases that I have identified where the full height and maximum spread of **turbines in the numbers proposed would be seen at their greatest from closest to (typically at up to about 800 m), and with little or nothing by way of intervening screening, it is my conclusion that living conditions would be demonstrably harmed by significant and over-dominant visual impact**. There would be conflict with the relevant SP and LP policies safeguarding against un-neighbourly development whether from noise, flicker or visual impact*." [CPC emphasis]

2.30 A second appeal refusal relates to a single 126.5m high turbine proposed at Curborough sewage treatment works, near Lichfield[12]. Here, some 26 properties lay within 850m of the site and the Inspector considered the following circumstances to be a reason for refusal:

"17. *Highfields Bungalow is about 620m to the south-west of the proposed turbine. The occupant of this dwelling would have views of the proposal from the lounge and dining room windows at the rear and from the garden, notwithstanding the intervening hedgerows and trees, and the rise in the land. Similarly, the turbine would be seen from bedroom side and rear windows in Curborough Grange Farmhouse, some 590m away, and Curborough Hall Farmhouse, about 670m away.*

*18. However, Wood End Barn and Wood End Farmhouse are only some 450m from the proposed turbine. They have habitable rooms, including living rooms, which would have clear, uninterrupted views of the site across essentially open land. **In***

[11] Paragraph 68 of the decision.
[12] APP/K3415/A/10/2134017

these circumstances, because of the distance involved and the juxtaposition of the properties to the turbine, I conclude that this tall, rotating structure would be overwhelming, obtrusive and unavoidable to the residents of these properties such that their amenities would be unacceptably impaired." [CPC emphasis]

2.31 A third refusal on appeal[13] is notable for the fact that the refusal of a windfarm virtually the same as now proposed (8 x 125m turbines) turned largely upon residential amenity at just two dwellings (out of 186 assessed). At one, 739m away from the nearest turbine, 4 out of the 8 turbines would be most prominent from living room windows and others would be less visible, over a spread of 145°: "…*the proposed turbines would,* ***as a result of their height, proximity and spread, appear unpleasantly imposing and pervasive*** …"[14] [CPC emphasis].

2.32 At the second property, 702m from the nearest turbine, 3 would be in the foreground of the principal outlook from the house, with 5 also within the quadrant (90°)[15]. The Inspector concluded:

"97. In terms of the visual impacts on local residents two dwellings would experience serious adverse effects with ***the proposed turbines appearing unpleasantly overwhelming in relation to each property as a whole****. Whilst the planning system does not exist to protect the private rights of one individual against the activities of another,* ***the consequences here would amount to far more than a loss of a view; the outcome would inevitably be the creation of unacceptable living conditions****."* [CPC emphasis]

2.33 While it is the case that all planning applications and appeals should be decided on their merits, the three quoted above all illuminate what is considered acceptable and unacceptable in terms of separation distances, in very similar landscapes. In that sense, the merits of a particular application certainly can include the precedent of decisions on such matters.

2.34 A very recent relevant planning refusal, currently being appealed, is for the Watford Lodge windfarm, refused by Daventry District Council in April 2011[16]. It comprised

[13] APP/D2510/A/10/2121089, Horncastle, Lincs; the other ground for refusal was harm to the landscape
[14] Decision, paragraphs 57-60
[15] Decision, paragraph 63
[16] DA/2009/0620, Land Adj to Watford Lodge Farm, West Haddon Road, Watford, Northamptonshire. Description of Development: Construction of a Windfarm, comprising 5 No. wind turbines (up to 125m), access track, 5 No. transformer units, control building/sub-station, underground cabling, meteorological mast (70m) and crane hardstanding areas. Decision Notice dated 20 April 2011.

only 5 turbines but of the same size as proposed at Churchover. The Council resolved to refuse permission for *inter alia* the following VIA reason:

"*1. The proposed turbines would, by reason of their height, movement of rotating blades and proximity to residential properties, have a dominant, intrusive and oppressive impact on the living conditions of the occupants of nearby residential properties contrary to the considerations of Policy …*"

Reason

"*Whilst generally the wider environmental and economic benefits of Renewable Energy projects is acknowledged as a material consideration it is considered that* ***the benefits of this particular scheme are outweighed by the harm done to the living conditions of occupants of these residential properties*** *having particular regard to the key principles of Paragraph 1 (i) (iv) and (viii) of PPS22 : Renewable Energy*."

2.35 The properties that would suffer a dominant, intrusive and oppressive impact on their living conditions are at 1000-2000m from the turbines, which are much further away than those proposed at Churchover.

2.36 Distances beyond the up to about 700-800m encountered in the above instance are by no means automatically acceptable, either. In the Auchnagatt (Scotland) appeal refusal[17] the Reporter was critical of the limits of visual assessment methodologies ("*Visual impacts can be difficult to fully replicate in advance using recognised visual assessment methodologies*")[18] before turning to distances from dwellings. He opined: "*Residents* ***only 1.1km*** *from the nearest turbine can be counted as highly sensitive receptors*." [CPC emphasis]

2.37 At another Scottish appeal, Alford (Aberdeenshire)[19] a Reporter considered that "… *the proposed development would have a major* ***adverse impact upon residents*** *of Tarland, an attractive village* ***some 4.5km from the site, and would form a backdrop to the village from the south***". [CPC emphasis]

2.38 There is no reason to presume that Scottish residents are more sensitive than English ones to visual impacts, such that they need stand-offs of 1100m or 4500m; it is far more reasonable – indeed, proven by appeal decisions – to suggest that in England the wind farm industry is repeatedly pushing for turbines much less than

[17] P-PPA-110-2061, 8 December 2010; the development was 3 x 92.5m turbines.
[18] Decision, paragraph 4
[19] P-PPA-110-2014, 12 November 2010; the development was 7 x 125m turbines.

1000m from (and in many cases less than 500m from) dwellings and that is unacceptably close, as at Churchover.

2.39 In this regard it is relevant that (at the time of writing) two Private Members bills are proceeding through the houses of Commons and Lords. The Onshore Wind Turbines (Proximity of Habitation) Bill (HC Bill 108) would require that stand-off distances be ten times the turbine rotor diameter (i.e 1265m in this case). The Wind Turbines (Minimum Distances from Residential Premises) Bill [HL] would require for the present proposal a minimum distance requirement of 2000m. Neither of these private members' bills stands any chance of becoming law, although incorporation of either proposal into the Localism Bill remains a possibility. The relevant point is that the sort of minimum stand-off distances being proposed, and finding Parliamentary support, are 1260m and 2000m – much more than double the distances proposed by SSE at Churchover.

Relative heights of observer and turbines

2.40 In round figures, Churchover and the proposed windfarm are at comparable ground levels, some 110-120mAOD. However, views from local public rights of way (PROWs) include several where the PROW is below the ground level of the turbines. Several PROWs crossing the River Swift are at about 92-96m AOD, whereas the nearby turbines are based at 110-115m AOD. Therefore, the already substantial height of 126.5m will effectively be increased, to 140-150m, when perceived from those viewpoints. That inevitably increases the looming, overbearing, dominating, effects.

Additional Impact due to Motion

2.41 A very significant additional source of visual impact is that, unlike almost any other tall structure[20], wind turbine blades move and thus draw the eye to them. Motion causes a considerable increase in noticeability, and hence aggravates visual impact. Still worse, the "lazy" rotation common at lower wind speeds, plus the fact that in

[20] One of the few similarities might be with tall chimneys, which may be more noticeable when smoke or steam is issuing than when it is not, although the rapid dispersion of the plume quickly creates nothing worse than a slightly un-natural cloud. But, wind turbines add an extra dimension to the chimney scenario, by virtue of the sheer mechanical lumbering of their rotation.

multiple installations individual turbines can turn at slightly different speeds, creates both a robotic[21] and a chaotic visual effect. Put simply, operating wind turbines attract attention to themselves which makes them much more difficult – indeed arguably impossible – to ignore[22]. In the worst-affected houses and gardens in Churchover, normal relaxation in the garden could be prevented substantially or completely.

2.42 It should be made clear that although in Load Factor terms, turbines are only around 25% efficient (and in this locality it is believed that they are only about 18% efficient) that does not mean they operate at 100% efficiency for 25% of the time and are stationary for the rest. It means that they drift around for a great deal of the time, causing the nuisance but generating little electricity.

2.43 Several appeal decisions have confirmed this. An Inspector refusing an appeal at Market Drayton commented[23]:

"*Apart from their height the movement of the blades would draw the eye and be a constant reminder of their presence*."

2.44 And, later in his decision[24]:

"….*all 7 turbines would be visible* [from specified properties] *with no significant screening by vegetation or topography. Due to the relative proximity* [700-750m] *of the turbines and the lack of screening, or the potential to mask the turbines effectively, I consider* ***the panorama of rotating turbines would be overwhelming, obtrusive and unavoidable to the residents*** *of these properties*." [CPC emphasis]

2.45 Other appeal refusals, cited elsewhere in this objection, also refer to movement as a drawback of wind turbines. All confirm that at Churchover this would, of itself, be a reason for refusal.

[21] Some might say hypnotic.
[22] This can easily be concerned by observing the two small turbines on top of the new multi-storey Rugby Station car park in Mill Road, Rugby. When stationary, they are hardly visible; when rotating, they are highly prominent.
[23] APP/L3245/A/08/2088742 and APP/P3420/A/08/2088745, paragraph 41
[24] ibid, paragraph 45

3.0 The Historic Environment

SUMMARY ASSESSMENT AGAINST LEGAL REQUIREMENTS AND DEVELOPMENT PLAN POLICIES

Planning (Listed Buildings & Conservation Areas) Act 1990 – fails to comply with s.66 (desirability of preserving listed buildings and their setting) and with ss.69-73 (development affecting the character or appearance of a conservation area and desirability of preserving or enhancing the character or appearance of a conservation area)

PPS1 Delivering Sustainable Development 2005 – fails to comply with paragraphs 1 (does not protect and enhance historic environment not conserve countryside), 3 (conflicts with definition of sustainable development by preventing present generation meeting its own needs, and compromises the ability of future generations to meet their needs), 4 (effective protection of the environment), 5 (protect and enhance quality and character of the countryside and existing communities), 17 (fails to protect and enhance the environment, fails to maintain or improve the local environment), 19 (does not avoid significant adverse impacts on the environment).

PPS5 Planning for the Historic Environment 2010 – fails to comply with policies HE1.3, 1.3, 7.2, 7.4, 9.1, 9.2, 9.4, 9.6 and 10.1 (full details given below)

RSS West Midlands 2008 – fails to comply with Policy QE5 (does not protect, conserve and enhance the Region's diverse historic landscape), and Policy QE6 (does not protect and where possible enhance man-made and historic features that contribute to landscape character and distinctiveness).

Rugby Borough Local Plan 2006 – fails to comply with policy E17 (adversely affect character appearance or setting of historic park/garden, any other element of the historic landscape).

Rugby Core Strategy 2011– fails the Spatial Vision (protection and enhancement of the Borough's existing natural assets; fails to create/protect an attractive historic environment throughout the Borough); fails Chapter 6 and policy CS14 (essential that Green Infrastructure assets are protected, fails to safeguard non-statutory historic and archaeological sites

3.1 Archaeology and cultural heritage issues are very relevant to, indeed an integral part of, landscape assessments, but are dealt with here in their own right because additional planning criteria apply in certain respects. The European Landscape Convention came into force in 2004 and defines landscape as "*an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*." This acknowledges that landscapes are not just products of geology, geography, climate and ecology; they are also the result (in the UK at

least) of centuries of human endeavour, as emphasised by the Government's statutory adviser Natural England[25].

Conservation Area and Listed Buildings

3.2 The old village area of Churchover has held Conservation Area (CA) status for many years[26]. Within the CA are numerous Listed Buildings (LBs), of which the most notable is Holy Trinity Church, listed Grade II*. That grade is also applied to Coton House, 2km from Churchover. Grade II status is awarded to a barn at the Manor House, and the White House (both Church Street), Heath Farmhouse (School Street) and the stables at Coton House. In addition, other CAs and LBs beyond Churchover may be affected (e.g. Newnham Paddox).

3.3 Planning Policy Statement 5 (PPS5), "Planning for the Historic Environment" was issued in 2010, plus a Practice Guide. The Government's objectives, *inter alia*, include:

- Recognition that heritage assets[27] are a non-renewable resource
- To take account of wider social, cultural, economic and environmental benefits of heritage conservation
- Ensure that the positive contribution of [heritage] assets to local character and sense of place is recognised and valued[28].

3.4 PPS5 sets out the following relevant policies and these are given below[29], with comments as appropriate.

HE1.2 Where proposals that are promoted for their contribution to mitigating climate change have a potentially negative effect on heritage assets, local planning authorities should, prior to determination, and ideally during pre-application discussions, help the applicant to identify feasible solutions that deliver similar

[25] Natural England, "Making space for renewable energy: assessing on-shore wind energy development", 2010; see pp 6, 9
[26] Date uncertain, but ca 1979, it is thought. It has recently (2010) been reassessed and the CA status remains justified.
[27] PPS5 defines Heritage Assets as "*A building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage assets are the valued components of the historic environment. They include designated heritage assets (as defined in this PPS) and assets identified by the local planning authority during the process of decision-making or through the plan-making process (including local listing).*"
[28] PPS5, p.7
[29] Irrelevant policies or portions thereof are omitted, but otherwise these are direct quotes from the full suite.

climate change mitigation but with less or no harm to the significance of the heritage asset and its setting.

3.5 COMMENT: The proposed development will have very clear negative effects on the integrity of the CA and some of its LBs, notably Holy Trinity and the White House. This damage is impossible to mitigate. It is unknown what (if any) help the applicant has received from Rugby Borough Council prior to application but, as identified by CPC below, there are renewable energy sources other than wind which have the potential to deliver similar or greater amounts of electricity without any impact upon heritage whatever.

HE1.3 Where conflict between climate change objectives and the conservation of heritage assets is unavoidable, the public benefit of mitigating the effects of climate change should be weighed against any harm to the significance of heritage assets in accordance with the development management principles in this PPS and national planning policy on climate change.

3.6 COMMENT: As noted above, the conflict created by this application is not 'unavoidable' as a different renewable source and/or a different location could be found, and the present conflict entirely prevented.

HE7.2 In considering the impact of a proposal on any heritage asset, local planning authorities should take into account the particular nature of the significance of the heritage asset and the value that it holds for this and future generations.

3.7 COMMENT: As set out above it is CPC's view that the combination of heritage assets severely damaged by this proposal – the LBs, the CA as a whole, and their landscape and cultural context, the Swift Valley– are of high significance for this and future generations, as they have been for past generations for a thousand years.

HE7.3 If the evidence suggests that the heritage asset may have a special significance to a particular community that may not be fully understood from the usual process of consultation and assessment, then the local planning authority should take reasonable steps to seek the views of that community

3.8 COMMENT: It is hoped that these objections will help the LPA to fully understand the significance of these heritage assets, but CPC is happy to offer further explanations and assistance. No approach has been received from the Borough to date[30].

HE7.4 Local planning authorities should take into account:
– the desirability of sustaining and enhancing the significance of heritage assets, and of utilising their positive role in place-shaping; and
– the positive contribution that conservation of heritage assets and the historic environment generally can make to the establishment and maintenance of sustainable communities and economic vitality by virtue of the factors set out in HE3.1

3.9 COMMENT: the planning application offers no opportunity to sustain and enhance the significance of the heritage assets. However, CPC would agree that conservation of our heritage assets can and already does make a positive contribution to the maintenance of this particular sustainable community. Only in the financial sense could the proposal be viewed as positive – and then only if the developers offered substantial sums for maintaining and enhancing LBs, for example, and the CA generally. But, as the price of such sums would be destruction of the landscape context, the exercise would be self-defeating[31].

HE9.1 There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost, heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments … grade I and II listed buildings …. should be wholly exceptional.*

3.10 COMMENT: This is an extremely powerful policy. It makes clear that Grade II* LBs are of the highest significance and, as the fundamental damage to Holy Trinity, for one, can hardly be doubted, it is clear that the proposed development should be rejected. The magnitude of the damage would require that a "wholly exceptional" development would be required before it could be permitted. There is nothing wholly

[30] Although the kind assistance of several Borough officers during the year leading up to this application is gratefully acknowledged, that does not amount to fulfilling the PPS requirement which clearly goes beyond conventional pre-application or statutory consultation and has not centred upon heritage to any extent.
[31] Moreover, financial grants could probably only be offered to a public building (Holy Trinity) and not to private owners of the remaining heritage assets. Opportunities to enhance the CA are extremely limited.

exceptional about this windfarm, which is run-of-the-mill, of no material relevance to combating climate change, is non-viable and not needed, and is not even the best renewable energy technique.

HE9.2 Where the application will lead to substantial harm to or total loss of significance local planning authorities should refuse consent unless it can be demonstrated that:
(i) the substantial harm to or loss of significance is necessary in order to deliver substantial public benefits that outweigh that harm or loss; ….

3.11 COMMENT: It is clear that the harm to Churchover's CA, LBs and context generally would be substantial at the least and, in respect of Holy Trinity, total loss of significance due to the overwhelming dominance of turbines five times higher than the spire and as little as 800m from it. As previously set out, no material public benefits exist to outweigh the harm.

3.12 In this regard, several planning appeal decisions are very relevant as illustrating the factors involved in determining appeals in which LBs and turbines are involved.

3.13 The first relates to an appeal re a single 126.5m high turbine proposed at Curborough sewage treatment works, near Lichfield[32], Staffordshire. The turbine was 3.98km from Lichfield Cathedral, a Grade I LB. The Inspector found that the turbine was supported by national and local policy, and the landscape of the "immediate surrounding area" would be able to accommodate a single turbine without undue significant effect[33]. But, on the issue of impact upon the Cathedral, the Inspector found that:

"*views are uninterrupted by landscape features such that the cathedral spires dominate the skyline and one's eye is drawn to them****. I find that to place this turbine in this location would reduce the visual dominance of the spires …. and severely diminish the visual dominance of the cathedral over the surrounding area. It would be detrimental and harmful to the appearance and the character, and hence the significance, of the cathedral and its setting***." [CPC emphasis]

3.14 Bearing in mind that this was just one turbine (identical in size to the 9 proposed at Churchover) over 3.98km distance – rather than 9 turbines over 0.8-1.7km distance

[32] APP/K3415/A/10/2134017
[33] Paragraphs 10 and 14 of the decision

– it is a very clear indication that the present proposal would be found unacceptable on appeal.

HE9.4 Where a proposal has a harmful impact on the significance of a designated heritage asset which is less than substantial harm, in all cases local planning authorities should:
(i) weigh the public benefit of the proposal (for example, that it helps to secure the optimum viable use of the heritage asset in the interests of its long-term conservation) against the harm; and
(ii) recognise that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss.

3.15 COMMENT: This rather duplicates policy HE9.2 although it is partly referring to "*the optimum viable use of the heritage asset in the interests of its long-term conservation"* which is not relevant here. Otherwise, it sets out the LPA's duty to balance the loss to the environment against the need for the development.

HE9.6 There are many heritage assets with archaeological interest that are not currently designated as scheduled monuments, but which are demonstrably of equivalent significance. These include heritage assets:
• that have yet to be formally assessed for designation
• that have been assessed as being designatable, but which the Secretary of State has decided not to designate; …. The absence of designation for such heritage assets does not indicate lower significance and they should be considered subject to the policies in HE9.1 to HE9.4 and HE10.

3.16 COMMENT: This can reasonably be applied to the case of the de-scheduled SAM at Cestersover Mediaeval Village; it is demonstrable that it once justified SAM status and there is no evidence that de-scheduling was justified. It is therefore not of lower significance and should be considered as per policy HE9.6.

HE10.1 When considering applications for development that affect the setting of a heritage asset, local planning authorities should treat favourably applications that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset. When considering applications that do not do this, local planning authorities should weigh any such harm against the wider benefits of the application. The greater the negative impact on the significance of the heritage asset, the greater the benefits that will be needed to justify approval.

3.17 COMMENT: The application, as already argued, will cause demonstrable harm to the setting of all Churchover's heritage assets and has no positive effects, either locally or widely.

3.18 Churchover maintains a close association between the village and the land that has supported it for a thousand years. Only in the last fifty years have active farm buildings moved out of the village (the last not until 1990) and the land today, including the whole of the windfarm site, remains in the same mixed arable/cattle/sheep grazing pattern that it has enjoyed for a millennium. Nor has the landscape been seriously stripped of hedgerows. The traditional field patterns and names largely remain.

Churchover – a cultural landscape

3.19 Churchover and its Swift Valley setting are mutually supporting: to harm either is to harm both. The settlement and its valley context go back to about 880 AD[34].

3.20 Churchover appears in Domesday as *Wara*, *Wavra*, *Wavre, Gavra* and *Gawre*. These are all derivatives of Old English *woefre*, meaning 'wandering' and rendered today as "over", a name which occurs as both a personal and a geographical element[35]. It originates probably as an allusion to the meandering river which was, until recent centuries, in fact named the River Over and not the River Swift. The 'Church' element of Churchover had been introduced by 1247 to distinguish the settlement from Domesday's "*Bruno's Gavra*" – today's Rugby suburb of Brownsover. It is remarkable to find, a thousand years after the event, a Midlands Domesday settlement so clearly exhibiting its linguistic, topographic and cultural origins. The church, Holy Trinity, is the defining landmark of the village and distinctive from a wide area.

3.21 Another important landmark is Cestersover Farm house, not just a landscape adornment in its own right but an ever-present reminder of the deserted and destroyed mediaeval village of Cestersover[36] which adjoins or partly underlies the proposed windfarm. Visible too are the earliest remains of the Oxford Canal, and many other historic features, including another Domesday reference, the old water mill. Overlaying all this, the extensive and well developed areas of mediaeval ridge-and-furrow ploughland on the village side of the Swift represent an historic and

[34] C.G.Down, "A brief history of Churchover with notes on Coton and Cestersover", 1997.
[35] It has been a surname associated with the locality for a thousand years and remains so today.
[36] In January 1467 Sir Henry Waver (another echo of Over) was granted a licence to erect and crenellate walls and towers at Cestersover and that embellishment of his house is thought to have been the spark for the clearance of the village

landscape resource which is slowly but surely being destroyed across Warwickshire and other midland counties.

3.22 Simply to stand in the churchyard, to sit in the village pub garden, or to walk the numerous footpaths – and these are the daily privileges of residents and visitors alike – is to commune and connect with this history. The unity of the whole – farmland, river and settlement – is remarkably pure, especially so close to Rugby. The key to all this is the church: its contribution to the name of the village, the focus and scale it imparts, its landmark quality, etc. It would be comprehensively destroyed if the windfarm were to be developed.

3.23 These points were comprehensively made by an Inspector rejecting an appeal against refusal of planning permission for the Dover North Windfarm in 2009[37], in a situation where a village church figured heavily:

"***Churches are the main spiritual and pastoral focus of community activity and local people identify strongly with them to establish, individually and collectively, their own distinctive sense of place, purpose and history. The quality of the buildings themselves and of their surroundings also often represent the pinnacle of a settlement's architectural achievement*** *and they are widely recognised and appreciated as a showcase of the environmental quality of a settlement and the social well-being of its people. For all of these reasons, it seems to me* ***that a unique and particularly compelling importance attaches to maintaining the peace and tranquillity of their surrounds and the quality of views to, from and of them that are religiously, socially, architecturally, historically or visually important to the community***." [CPC emphasis]

3.24 The Inspector considered specifically a church (St Augustine's) which was Grade II* listed (the same as Churchover) and also a SAM, and in a CA. His conclusions here are quoted in full. The specific place names are meaningless taken out of context but the Inspector's views resonate in the Churchover situation, which it exactly resembles:

"*81. …. In the absence of suitable screening, the presence and movement of turbines this near* [minimum 580m] *could, I consider, be found* ***so pervasive as to disrupt those seeking solace in quiet contemplation, particularly directly after bereavement****, and I would come to a similar view whether exercising my Section 66(1) duty or not.*

82. Nevertheless, the most secure safeguard for ensuring preservation of the

[37] APP/X2220/A/08/2071880, paragraph 80.

"contemplative" setting of the Church would, I consider, be greater separation distance. Exclusion of nearest turbine (T1) would be beneficial in that context, but it seems to me that ***the spread of turbines across this view is also a factor. I say that particularly in the context of views into and out of the Conservation Area and the wider setting of the Church itself****. From the elevated parts of Pond Lane and Hollands Hill (and from some points on the footpath between) I saw that* ***the low but clearly identifiable tower of the Church is a significant landmark in itself, enabling the eye to alight easily on other visible parts of the settlement and providing a clear reference for the scale of buildings within it. The turbine cluster would effectively become a broad and eye-catching backdrop to this charmingly arcadian scene. The contrast in height, modernity and character between these very different structures in such close***
juxtaposition would, I consider, be jarring, *an effect that would be amplified by the spread of turbines to T5, which would be somewhat detached from the others when seen from these general directions. It is thus my conclusion that neither four nor five turbines would suitably preserve or enhance the setting of the Church, or what I regard as important views into the Conservation Area*." [CPC emphasis]

3.25 This approach has been endorsed more recently in an appeal at Market Drayton (7 x 110m turbines)[38] where the Inspector repeated the above and added: "***It is not in the public interest to create such living conditions where they did not exist before***." [CPC emphasis]

3.26 A recent (April 2011) appeal refusal, at Tilton-on-the-Hill (Leicestershire) further illuminates what is and is not acceptable with regard to wind turbines and listed churches[39]. A single 50m-high turbine was proposed 910m[40] from a Grade I listed church, St. Peter's. The Inspector noted that its spire was a dominant feature on the hill, "*particularly from the valley to the north on the north slope of which the proposed wind turbine would be sited*."[41] She also noted that there was a Grade II listed house, and that the village was a Conservation Area. Her conclusions demonstrate other similarities with the Churchover situation:

"*7. The landscape of the area provides the setting not only for the Church but for the historic settlement of Halstead and its grade II listed Halstead House some 700m to the south east, typical of 18th and 19th century farmsteads.* ***The proposed wind turbine would not have a direct effect on the Church from within Tilton on the Hill or its conservation area but would result in the loss of prominence of the spire from the surrounding area. The proposed turbine would be dominant in views of the Church spire****, particularly from the road*

[38] APP/L3245/A/08/2088742 and APP/P3420/A/08/2088745, paragraph 43.
[39] APP/F2415/A/10/2134781
[40] Distance not given in the Inspector's decision letter, but taken as 910m from www.magic.gov.uk
[41] Decision, paragraph 6

through the valley from Halstead to Marefield along parts of which ***the church spire would be lost behind the turbine or at least dwarfed.*** *…..*

*8. Nevertheless****, by virtue of its*** [the turbine] ***isolated location within the field away from any of the sizeable trees within the holding or the farm buildings, its vertical scale and blade sweep would have an harmful impact on, and fail to preserve the setting of the Church contrary to the general duty in section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990*** *and LP policy EV/16*." [CPC emphasis]

3.27 From these appeal decisions, taken together with the facts at Churchover, there can be no doubt that turbines, fewer in number and/or smaller than now proposed, and at similar distances from LBs (and in particular churches) as now proposed, are repeatedly judged to fail to preserve the setting of LBs and to be contrary to the duty in the Act to preserve listed buildings and their settings, and the duty of preserving or enhancing the character or appearance of conservation areas.

3.28 Additionally, a very recent relevant planning refusal is for the Watford Lodge windfarm, refused by Daventry District Council in April 2011[42]. It comprised only 5 turbines but of the same size as proposed at Churchover. The Council resolved to refuse permission for *inter alia* the following cultural heritage reason:

"2*. Whilst generally the wider environmental and economic benefits of Renewable Energy projects is acknowledged it is considered that* ***the benefits of this particular scheme are outweighed by the harm done to the setting of the heritage assets*** *referred to in the officer's report , namely … and the* ***undesignated*** *Watford Park having regard to and applying directly the requirements of Policies* …." [CPC emphasis]

3.29 The heritage assets that would suffer from that proposed development were at 1000-2000m from the turbines, which is much further away than proposed at Churchover.

Archaeology

3.30 The proposed development's greatest risk of conflict with conventional archaeological features is with the Cestersover Mediaeval Village site. It received statutory protection as a Scheduled Ancient Monument (SAM) in 1983 but was de-

[42] DA/2009/0620, Land Adj to Watford Lodge Farm, West Haddon Road, Watford, Northamptonshire. Description of Development: Construction of a Windfarm, comprising 5 No. wind turbines (up to 125m), access track, 5 No. transformer units, control building/sub-station, underground cabling, meteorological mast (70m) and crane hardstanding areas.

scheduled in 2001[43]. The de-scheduling is something of a mystery, inasmuch as the reason was given as persistent damage by ploughing. However, similar SAMs around Britain have suffered similar damage and remain SAMs and this is because what is of at least equal importance is what remains, undamaged, below ground level. No investigation (remote sensing or intrusive) is known to have been undertaken to determine this matter and therefore it is entirely possible that retaining SAM status at Cestersover would have been justified.

3.31 Accordingly, there remains good reason to believe that the development could have an adverse effect upon the former SAM, and this should have been explored as part of the environmental impact assessment and application processes.

[43] www.warwickshire.gov.uk/timetrail

4.0 Landscape Impacts

SUMMARY ASSESSMENT OF THE PROPOSED DEVELOPMENT AGAINST LEGAL REQUIREMENTS AND DEVELOPMENT PLAN POLICIES

PPS1 Delivering Sustainable Development 2005 – fails to comply with paragraphs 1 (does not protect and enhance historic environment not conserve countryside), 3 (conflicts with definition of sustainable development by preventing present generation meeting its own needs, and compromises the ability of future generations to meet their needs), 4 (effective protection of the environment), 5 (protect and enhance quality and character of the countryside and existing communities), 17 (fails to protect and enhance the environment, fails to maintain or improve the local environment), 19 (does not avoid significant adverse impacts on the environment) and 27(ix) (does not enhance or protect historic environment and landscape character).

PPG2 Green Belts 1995 – fails to comply with paragraph 3.2 (it is inappropriate development and no very special circumstances have been made out), and 3.15 (injures visual amenity in and from Green Belts)

PPS7 Renewable Energy – fails to comply with Key Principle 1 (no effective protection and enhancement of the environment), paragraph 15 (does not ensure that quality and character of the wider countryside is protected, and paragraph 24 (does not protect areas of locally highly valued landscape via landscape character assessment).

RSS West Midlands 2008 – fails to comply with Spatial Strategy Objective paragraph 3.14, to conserve and enhance quality of environment across the region.

Rugby Borough Local Plan 2006 – fails The Vision (does not take care of the environment, enhance the green areas around Rugby), The Strategy (fails to maintain the Green Belt, enhance environmental and cultural assets), and policies GP1 (not integrated with any settlement; is not an attractive and appropriate transition with the countryside; fails to respect contribution of open land to amenity), GP5 (causes material harm from renewable energy to residential amenity and the environment), E1 (does not preserve character of the countryside), E2 (is inappropriate development in the Green Belt), E5 (fails to respect and enhance character of the area, damage or destroy features which contribute to character of local area, and are valued by the community), E17 (does not protect historic landscape).

Rugby Core Strategy 2011 – fails to comply with Spatial Vision (development will protect and enhance the area), Spatial Vision 11 (protect and enhance natural and historic environment), and policy CS14 (protection of green infrastructure including open countryside and heritage).

4.1 It is widely acknowledged, even by their proponents, that landscape impacts are likely to be a particular problem with windfarm development[44]. Techniques of

[44] PPS22 para 20: "…*wind turbines are likely to have the greatest visual and landscape effects*…". See also the Scottish Natural Heritage comments in Appendix B.

assessment have evolved which, so far as possible, seek to remove the personal element of landscape and visual assessment.

4.2 Landscape Character Assessment (LCA) is the characterisation of landscapes in as value-free way as possible, by identifying the various elements which go to make up the landscape. LCA does not try to judge the more subjective matters of landscape quality or value. LCA has been conducted at all level from national, via regional to very local levels. In Warwickshire and Rugby, studies undertaken in 1993 and 2006 comprised the evidence base until 2011, when a Landscape Capacity Study was undertaken[45] (commissioned by Rugby Borough Council (RBC) which was adopted by RBC as a "*material consideration in planning determinations*" in April 2011. More detail of that is given below.

4.3 There is another component of landscape assessment, namely effects upon cultural heritage and archaeology which are dealt with separately later in this objection, under that heading.

Landscape character and capacity

4.4 The LCA work referred to above formed the basis of the White Consultants capacity assessment. The purpose of this work was to assess "…*the ability of a landscape to accommodate different amounts of change (i.e. commercial scale wind energy development) without a fundamental change in character*…"[46]. It drew a clear distinction between a landscape with windfarms and a windfarm landscape – that is, the tipping point between the maximum capacity of the landscape and excess windfarm development.

4.5 The LCA work identified that the currently proposed development[47] would lie within the "*High Cross Plateau – open plateau*" character type which was judged to have a medium sensitivity to wind energy development. Following the testing of a series of

[45] White Consultants, "*Rugby Borough Landscape Capacity Study for Wind Energy Developments*" Final Report, March 2011
[46] Page 4
[47] In addition to identifying theoretical locations for wind turbine clusters, in various landscapes, the report adopted the two publicised "real" locations at Churchover and Copston Magna, on the basis that it would be nonsense to ignore them.

scenarios, the report concluded that this landscape type had "...*some capacity for wind-farm development – preferably one but one other may be possible*."

4.6 The 'one' was a cluster of 1 – 7 turbines best located in the core of the upper plateau to the north, in the general area of Copston Magna. Indeed, that cluster was generally equivalent to a real proposed windfarm[48].

4.7 The possible 'one other' was the similarly real cluster then proposed (and now applied for) at Churchover, where the report advised[49]:

"*One further small cluster (preferably 1 – 4 turbines) may be able to be accommodated further east* [of Copston Magna - CPC] *but its siting and design needs to ensure that effects are minimised on Churchover and its spire and other settlement*[s] *as well as on Newnham Paddox and the landscape character of the Swift Valley*."

4.8 It went on to say[50]:

"*Three windfarm clusters would be likely to make a significant part of the landscape feel like a windfarm landscape and become a dominant characteristic as well as having unacceptable cumulative significant effects upon sensitive receptors*."

4.9 So, the conclusions of the only independent landscape study specific to windfarms at Churchover were that the whole of the landscape character area could absorb preferably just one cluster of 1 – 7 turbines near Copston Magna; and that a second small cluster (1 – 4 turbines) *might* be possible subject to severe qualifications; but that any more clusters would change the landscape character into a windfarm landscape and have unacceptable cumulative significant effects.

The Developer's Position

4.10 The Capacity Study directly and fundamentally contradicts the planning application. Suggesting that 1 – 4 turbines <u>may</u> be able to be accommodated is a long way from the 9 turbines which the developer argues <u>can</u> be accommodated. However, the developer fails to address that; instead, the Planning Statement (PS) merely attacks

[48] Page 27, paragraph 7.3; the Copston Magna proposal has secured permission for anemometry, but no turbine application has been made to date.
[49] Page 27, paragraph 7.3
[50] Page 27, paragraph 7.4

the legitimacy of the study, saying[51] that the study carries little weight as it has not been tested through any development plan public inquiry. While literally true that is misleading, as stakeholders were involved from the beginning, and the study has been adopted by RBC as a material planning consideration – which is more than the developer's assessment has achieved[52].

4.11 Apart from Viewpoints 1 and 2 (and perhaps 3)[53], the remaining 20 photomontages presented by SSE relate to wider landscape impact rather than local visual impact. Of those 20, the following viewpoints include illustrations showing, or potentially showing, the relationship between the village and turbines:

- Viewpoint 4 (ES Figure 6.30) – No.6 turbine directly behind and diminishing the church
- Viewpoint 6 (ES Figure 6.32) – Churchover village too small to see because of wide-angle
- Viewpoint 8 (ES Figure 6.33) – too low down to show the village; from the M6 there would have been an excellent view.

4.12 So, even though Churchover is the only settlement that could suffer a material adverse visual impact, there has been no attempt by SSE to assess that impact. Instead, the views selected either trivialise it or ignore it altogether.

4.13 Following these expressed concerns by CPC at the time of SSE's public exhibitions in 2010, SSE prepared four additional photomontages – their viewpoints A, B, C and D. Those views were specified by RBC officers without consulting CPC and only SSE views A and D are similar to those suggested by CPC. Also, being again very wide-angle views, they diminish the true impact upon the village. Even so, they are horrifying enough:

- Viewpoint A is assessed by SSE as of **medium** sensitivity and the magnitude of the change is **high**; overall, the effect of the change is **significant**.

[51] Paragraph 6.4.2
[52] It is worth noting the SSE stood apart from the process – although invited to stakeholders' meetings, they chose not to attend.
[53] ES Figures 6.27, 6.28 and 6.29

- Viewpoint B is assessed by SSE as of **low-medium** sensitivity and the magnitude of the change is **medium-high**; overall, the effect of the change is **significant.**

- Viewpoint C is assessed by SSE as of **medium** sensitivity and the magnitude of the change is **high**; overall, the effect of the change is **significant.**

- Viewpoint D is assessed by SSE as of **low-medium** sensitivity and the magnitude of the change is **high**; overall, the effect of the change is **significant.**

4.14 SSE's own assessments are, therefore, quite severely against the acceptability of the development and one can understand why they did not volunteer to undertake them. But, only two of the four viewpoints are CPC's choice and even then SSE manages to substantially underplay the adverse impacts. In the case of views A and D, the adverse impact is allegedly mitigated by being transient – that is, glimpsed from moving vehicles. This is to misunderstand the nature of residents' use of these routes which is not just car-borne: they form daily walks for dog-walking and weekend/evening recreational strolling and there is nothing transient or glimpsed about the views. They will be permanently and adversely affected to a major degree[54].

4.15 There is a further error in respect of viewpoint C, where the magnitude of the changes is allegedly reduced "*due to the other man-made elements that exist within the view*." The main man-made element is actually the construction camp for the Churchover Gas Compressor Station Extension, which has now been removed and restored. This view, incidentally, demonstrates how the windfarm would diminish the views of Churchover and the church spire, which becomes subordinated to the nearest turbines, not withstanding the flattery of the wide angle photographs.

[54] A key to this argument is that, with any development and especially with windfarms, one can identify dozens – hundreds maybe – of viewpoints from which only modest and non-significant visual or landscape change would occur. Multiplying such examples, as the ES does, proves nothing. It is a few critical viewpoints – such as the impact upon the nearest and mainly affected settlement, that are key to the conclusion and that may explain why SSE has carefully avoided assessing any such viewpoint; even when pushed by CPC, only two of the four have been assessed.

4.16 In order to counteract the misleading impression of both SSE's original and supplementary photomontages, CPC has prepared its own.

CPC's assessment of the landscape impact upon Churchover village

4.17 Figures 1B, IC and 1D[55], appended, represent three key local views of the village as experienced by residents every day, while walking and driving. They typify the village landscape setting. Figure 1B is roughly equivalent to SSE's additional viewpoint A, but CPC's is again with a 55mm lens to represent the human eye, and not SSE's wide-angle view. Either photomontage illustrates the considerable damage to the view, especially when focused upon Cestersover Farm

4.18 CPC's Figure 1C roughly equates to SSE's additional viewpoint D. Once again, it can be seen how SSE's wide-angle approach trivialises the impact, but even their view demonstrably diminishes and subordinates one of the best views of the church and village i its context.

4.19 CPC's Figure 1D is a view from the layby on Lutterworth Road, a view of importance second only to view !C, and is not replicated by an SSE view. That is not surprising. The three turbines 7,8 and 9 totally dominate the church spire and, when rotating, would be impossible to ignore.

4.20 Taken overall, CPC would suggest that SSE seriously underestimates the adverse impacts, which are all **major adverse** in CPC's assessment.

CPC's Position on the Landscape Capacity Study

4.21 CPC, although understanding the broad conclusions reached in the Capacity study, disputes that the landscape capacity of the Swift Valley area of the High Cross Plateau is sufficient for even one cluster of 1 – 4 turbines. CPC reaches this conclusion for the following reasons.

Landscape type

[55] Figure 1A has been discussed under the visual impact heading

4.22 The "High Cross Plateau – open plateau" landscape type is too broad and is not considered to be the correct description of the Swift Valley, which is not in any sense characteristic of the open plateau, but of the "High Cross Plateau – village farmlands" type instead. This is proved by the illustration on p.23 of the report, which although looking straight across the plateau – thus confirming its open plateau character – also looks straight across Churchover but conceals the village completely. The valley is therefore demonstrably not in the landscape type. It needs to be remembered that the proposed windfarm is predominantly founded *in* the Swift Valley and not *on* the plateau. A detailed comparison of the two descriptions[56] makes quite clear that the Swift Valley, when judged against all the physical criteria defined for the two landscape types, matches the village farmlands and not open plateau type. The village farmlands sensitivity is judged by White Consultants to be that *no* wind turbines would be acceptable, and CPC believes that is the correct conclusion for the Swift Valley also. This is a detailed argument and is set more fully in Appendix A to this objection[57].

Vertical v horizontal features

4.23 A fundamental point about the Swift Valley landscape most affected by the proposed development is that, however it might be christened in the studies previously referred to, it is a relatively horizontal landscape with only modest man-made vertical elements. It is not, however, a flat landscape. The River Swift itself falls from about 98m AOD at Bransford Bridge to about 90m AOD at the ford on the Churchover – Harborough Magna road, a difference of about 8m in a distance of some 3km (river length) or a fall of only 1 in 375 and therefore slow flowing.

4.24 The High Cross plateau, across which the Swift flows, is fairly flat and regular, in the range 110-130m AOD for 10km and more. Churchover itself lies generally at 110-120m; other settlements are similarly located: Harborough Magna (typically 110m AOD), Pailton (115m AOD), etc. The Swift Valley is an area of more varied relief within the wider plateau landscape.

[56] White Consultants' Report, Appendix A, pp10 – 12
[57] Extracted from CPC comments on the draft White Consultants report, discussed at a meeting on 8 February 2011

4.25 This semi-natural valley landscape is supplemented by some extensive developments from the last 50 years, principally the M6 motorway, Coton Park (and soon the Rugby Gateway development), Magna Park and Swift Valley distribution parks. But, every one of these developments is also predominantly horizontal in form. The largest elements, such as the distribution warehouses, are extensive in area (up to 90,000m^2) but very low in height (15-20m at most). Churchover's Holy Trinity is the tallest structure, at just 25m high to the top of the spire and there is nothing remotely approaching that in the valley views.

4.26 Therefore, notwithstanding the extensive land areas taken by these built features, their heights are very modest and the overall result is that, considered solely as landscape building blocks, these very large structures are quite well absorbed into the naturally more horizontal landscape forms. In many cases this is assisted by landscape planting, with several years of growth. Nor do they encroach upon the relevant section of the Swift Valley, staying south of the M6 and north of the A5.

4.27 It is important to emphasise that there are virtually no strong vertical forms in the whole of the High Cross plateau, nor in the Borough of Rugby, with the exception of the Rugby Cement preheater tower which has a base level of ca85m, a height of 110m and an upper AOD of 195m. The proposed windfarm has a typical basal level of about 115m AOD and a total height to the blade tip of 126m, so that each turbine installation would have an elevation at the tip of around 240m AOD or 50m above Rugby Cement. Wind turbines are not, therefore, reflective of any pre-existing feature.

Cumulative impacts

4.28 Although the White report frequently refers to cumulative landscape impacts and indeed rules out a third cluster for that reason, and although it identifies other permitted windfarms on the Leicestershire side of the A5, the report's consideration of cumulative impacts is not followed through. Admittedly with the benefit of "ground truth" information not available at the time, the construction of the first of the two most relevant Leicestershire windfarms, Low Spinney at Gilmorton, demonstrates without the possibility of error the impact of just 4 x 126m turbines at a distance of 9.5km away from Churchover.

4.29 These appeared in April 2011 and are now prominent on the Churchover skyline. They dominate and diminish what used to be a pleasing rural view from Churchover of Lutterworth church steeple. They are highly visible, despite their distance, on every journey into the village from the east.

4.30 11 x 126m turbines have also been permitted at Swinford, between 5 and 8km east from Churchover, and construction will start very shortly. Together with Gilmorton, no fewer than 15 turbines will become very prominent from Churchover, over a 90 degree arc of horizon east and north of the village, during 2011.

4.31 The developer's ES refers to cumulative impacts, in particular between the present proposal, Low Spinney and Swinford[58]. It confirms CPC's fear that Churchover village is well within the cumulative zone of visibility of all three windfarms.

4.32 It is submitted that the cumulative visual impact of these 15 permitted turbines upon Churchover is in itself unacceptable in landscape character terms (bearing in mind that landscape character does not change at the A5, but continues well into Leicestershire). Had they been present at the time of the White study, there is little doubt that they would have been regarded as having "used up" the little possible existing capacity which that study assessed. Indeed, either could now be regarded as the "possible" second windfarm, beyond which landscape capacity would be exhausted.

4.33 Adding the effects of the now proposed 9 x 126.5m Swift Valley ones, and there would be 24 large turbines, at distances 0.8km to 9km, totally dominating the village landscape over an arc of 180 degrees. A representative popular viewpoint is the public footpath 100m north of Church Street, which leads to the village's steepest hill where the village children go sledging in the snow. The 4 Gilmorton turbines are already prominent, and every one of a potential ultimate 24 turbines would be highly visible, dominant and massively intrusive, from there.

4.34 This is partly confirmed by the ES's Figure 6.29 (Viewpoint 3) which is near to, but not the same as, the one referred to above. However, the ES viewpoint is (a)

[58] Bransford Bridge + Low Spinney Figure 6.15; Bransford Bridge + Swinford Figure 6.17.

chosen to hide the Low Spinney turbines behind Ryehill Spinney, and (b) fails to continue clockwise enough to include Swinford at all.

4.35 Churchover's landscape (whatever its character might be classed as by White Consultants) will have changed from rural and historic with distant and well-concealed large warehouses, to a full windfarm landscape – not just a landscape with windfarms. That change, and its many consequences, is completely unacceptable and the White report makes that abundantly clear.

4.36 The matter of cumulative impact has already figured in refusals of planning permission on appeal. One example, at Hemsby, Norfolk[59], involved a proposal of four turbines, 105m maximum height, in an area with no landscape designations but with three existing windfarms, one off-shore and two on-shore. The Inspector found no reasons to reject the appeal in terms of PPS22 policy on ecology, listed buildings, conservation areas, noise or health, but found that:

"*11. …. in this particular locality the proximity of so many* [wind turbines] *together with their varying inter-visibility would unacceptably change the delicate balance that exists between the turbines and their natural surroundings. It would compromise the visual amenity of residents, workers and travellers in the locality*."

"*28. It is concluded above* ***that the development would result in material harm to the character and appearance of the area because of its scale and location and the cumulative impacts of other similar developments***." [CPC emphasis]

4.37 That is the situation already warned of in the White Consultants report, and already emerging at Churchover.

Scale

4.38 The Scottish Natural Heritage (SNH) guidance already referred to[60] contains some important advice on relative scales of landscapes and windfarm developments. With reference to design objectives for windfarms it says the following[61]:

[59] APP/U2615/A/10/2131105
[60] APPENDIX B. It is worth noting that Scottish guidance is used because there is no English guidance and SSE follow that approach
[61] Page 24, paragraph 4.33

> *"4.33 A key design objective for a windfarm will be finding an appropriate scale for the windfarm that is in keeping with that of the landscape. To achieve this, the siting and design of the development will need to ensure that the windfarm in relation to the following aspects, is:*
> *– Of minor vertical scale in relation to the key features of the landscape (typically less than one third);*
> *– Of minor horizontal scale in relation to the key features of the landscape – the windfarm surrounded by a much larger proportion of open space than occupied by the development;*
> *– Of minor size compared to other key features and foci within the landscape; or separated from these by a sufficiently large area of open space (either horizontally or vertically) so that direct scale comparison does not occur."*

4.39 The present proposal completely fails to comply with this advice:

- The proposed windfarm is about 500% taller than the key features of the Swift Valley landscape (the topography, church spire, existing pylons, etc), although SNH recommends less than 30%.

- A windfarm should be of "minor horizontal scale" in relation to key features of the landscape, whereas this proposal is a major horizontal scale, because the landscape horizons are very close to the Swift Valley, due to the surrounding plateau: the windfarm is NOT surrounded by a much larger proportion of open space than occupied by the development, but would predominates over 90^{o} and, with the other permitted windfarms, over 180^{o} (and that ignores the cumulative effects of other windfarms on the horizon).

- There is just one key feature or focus, Holy Trinity spire which at 25m is only 20% of the size of the turbines, whereas SNH say that turbines should be of <u>minor size</u> comparatively. With a separation distance between spire and turbines of more or less zero from many public viewpoints, "*direct scale comparison*" could not be avoided.

Flexibility ("micro-siting") of location of turbines

4.40 In CPC's objection, there is a presumption that the turbine locations applied for are those that would be built if planning permission were to be obtained. In fact, SNH

guidance[62] advises that during the construction phase of a windfarm, it may happen that "*previously unexpected conditions are encountered on site*" and developers should minimise the need for post-permission adjustments by conducting through site investigation. Such adjustments typically involve distances of up to 100m[63].

4.41 In the present case, where the separation between dwellings and turbines is already far too small, it would be utterly unacceptable to reduce the distances at all and certainly not by a further 50m (20%) or more, which is what is applied for, for visual reasons let alone noise impact

Impact on Rugby's Landscape

4.42 Although CPC is primarily concerned with Churchover's environs, it would be remiss not to point out that Rugby itself will experience significant adverse effects from the development. Leaving the Town Hall on the Newbold Road, it will be noticed that the road is aligned northwards perfectly with Cestersover Farm which also forms the horizon of the view. Because of the "channelling" effect of roadside buildings, notably the police station, there is only a narrow arc of view, which will throw into great prominence between 2 and 4 turbines, depending upon where the viewer is positioned between the Town Hall and the Avon Mill railway bridge. The current 80m high meteorological mast is already prominent and it requires little imagination to picture the unacceptable impact of the turbines. Similar impacts will be seen looking down Oxford and Cambridge streets from the Clifton Road end.

[62] Op cit; paragraphs 3.28-3.31, page 16
[63] This is one of several astonishing exemptions from planning control available to windfarms. When householders are served with enforcement notices for building home extensions half a metre closer to boundaries than permitted, it is incomprehensible that windfarm developers should be allowed to avoid proper site investigations and instead shift their project around willy-nilly.

5.0 Other Environmental Impacts

Noise

5.1 Although for most industrial developments, noise standards are applied on the basis of British Standards 4142 and/or 5228, for windfarms conventional control is regarded as too restrictive. Instead, windfarms are required to abide by the looser ETSU-R-97 standard[64]. That of itself is a condemnation of the technology because, as the report says[65], employing the BS4142 approach of using only limits based on a margin above background "*would be unduly restrictive on developments which are recognised as having wider national and global benefits.*" It also raises again the point that if no material national and global benefits can be identified, the justification for laxer noise standards falls away.

5.2 There is widespread dissatisfaction with ETSU-R-97, but no consensus as to exactly what is wrong still less how to put it right[66]. Essentially, doubts focus on noise impacts which are imperfectly (or not at all) resolved by adherence to PPS22's guidance[67].

5.3 As this objection was being completed, a new report by the Hayes McKenzie Partnership, reviewing the methods used in practice to implement ETSU-R-97 guidance was published[68]. It advises that best practice guidance should be prepared to confirm, clarify and add to how ETSU-R-97 is implemented. It noted that many assessments do not address issues such as wind shear, that there was no requirement to include nay penalty or correction for modulation, the question of "financially involved properties" was a little unclear, and several other problems. In particular it suggests that the structure of and noise limits within planning conditions should be the subject of advice. In short, it makes clear that any grant of planning permission where noise is an issue could be premature until such additional advice is issued.

[64] The Working Group on Noise from Wind Turbines, "The Assessment and Rating of Noise from Wind Farms", report ETSU-R-97, September 1996.
[65] Executive Summary, paragraph 11.
[66] There is, for example, widespread agreement that ETSU omits several important issues, including wind shear and methods of prediction and the ES at paragraph 7.2.3.1 acknowledges this.
[67] PPS22 Companion Guide page 169, quoting ETSU.
[68] Hayes McKenzie Partnership Ltd, "Analysis of how noise impacts are considered in the determination of Wind Farm Planning Applications" (6 April 2011, but publication delayed to 27 June 2011)

5.4 Under current advice, the night-time limit can be relaxed to 45dB where the occupier of a property has some financial interest in the windfarm. As noted earlier, this is the only known formal relaxation of environmental standards for financial reasons and cannot be applied to Cestersover Farm because at least three of the five residential units there do not have any known financial interests.

5.5 The Environmental Statement[69] as regards noise makes the following assertions that CPC disputes.

Cumulative impact

5.6 At paragraph 7.2 it is stated that no cumulative assessment has been undertaken because no other windfarms could affect the conclusions. While CPC accepts that statement as regards other windfarms, the statement ignores another source that risks cumulative impact but which would not (and has not) been encompassed within SSE's background noise monitoring. The source of concern is the Churchover Gas Compressor Station near Ford Cottage.

5.7 The ES identifies issues of Amplitude Modulation (AM), infra-sound (that is, sound below the normal threshold of hearing, less that 20Hz frequency) and low-frequency noise. While the ES does not define low frequency in terms of Hz[70], it does note that as distance increases between turbine and receptor, higher frequencies are attenuated more rapidly than lower ones, so that as distance increases lower frequencies become more predominant. It further notes that complaints about windfarms are not due to low-frequency noise, but to AM. That is far from proven.

5.8 The gas compressor station gave rise to significant noise impacts in Churchover village during winter 1999-2000, despite a separation distance of around 1500-1700m. The effects, including a very low frequency "rumbling" noise, plus vibrations sufficient to rattle windows and ornaments, but below the threshold of hearing, affected some householders to a marked degree, while leaving others unaffected. Although these differences were possibly explained by different house constructions,

[69] ES chapter 7 pp 158-193
[70] It is regarded as <63Hz - CPC

locations and orientations, plus different individual sensitivities, no comprehensive explanation was ever arrived at.

5.9 A noise monitoring survey was undertaken[71] to investigate the nuisance and although the broad finding was that based upon BS4142 methodology complaints would not be expected, they found an important low frequency component that would have the potential to cause complaint. Monitoring simultaneously at the compressor station and at complainants' properties it was found that in low frequency bands centred on 31.5Hz and 63Hz the increase in night-time noise was 3-6dB $L_{A.90}$ at the village boundary (absolute level up to 62dB $L_{A.90}$, around mid-night) but at individual properties the increase was between 4 and 10dB $L_{A.90}$. Within houses, differences of 3-11dB $L_{A.90}$ were recorded at 31.5Hz although the absolute noise level was never above 58dB L_{Aeq}. After remarking that low frequency noise "*gives rise to particular problems for those who have to deal with complaints about it*" the report concluded:

> "*It is undoubtedly the case that low frequency noise from the Churchover compressors can be measured in the village and the noise levels obtained were higher than Transco would normally adopt for a new compressor station in a noise sensitive location. …it is possible that higher levels of low frequency noise may sometimes be radiated from the compressor station than was measured during the night*."

5.10 The windfarm assessment provides no low-frequency noise spectrum data for the source (Vestas V90 2MW turbine) at all[72], going no lower than 63Hz and omitting 31.5Hz. As such low frequencies are already proven to be an issue at Churchover, the ES is deficient in not addressing them, and in failing to investigate cumulative impacts with an existing proven noise source.

Micro-siting

5.11 The second concern is over the "micro-siting" aspect. A flexibility of +/-50m is unacceptable not only from the visual, but also from the noise, point of view. Although ES Figure 7.12 purports to illustrate predicted noise contours, it is on an extremely small scale and presumably deliberately so. A 50m tolerance would push individual properties into higher decibel bands, even if only by 1dB.

[71] By Acoustic Technology Ltd for Transco, 1- 2 December 1999
[72] Page 178 Table 7.4

5.12 SSE allege that as they would still be bound by noise planning conditions, micro-siting would only occur provided the noise conditions continued to be complied with. Indeed, they give an example condition, which inter alia specifies a day-time noise limit of 35dB $L_{A90,10min}$ or background plus 5dB $L_{A90,10min}$, and night-time noise limit of 43dB $L_{A90,10min}$ or background plus 5dB $L_{A90,10min}$ at night. It is perverse, to say the least, that a planning condition could result in a worse noise nuisance at night than at day, which is the opposite of accepted practise. There are other reasons why this is not acceptable.

5.13 The first is that the World Health Organisation advises that, to protect the majority of people from being moderately annoyed during the day, the outdoor sound level should not exceed 50dB L_{Aeq}. The proposed condition would allow noise well in excess of 50dB or, indeed, in excess of the normal UK industrial day-time limit of 55dB L_{Aeq} measured at the nearest noise-sensitive property. Moreover, other industrial developments are limited to 42dB $L_{A90,10min}$ at night[73]. The proposed planning condition allows unlimited noise at night, subject only to being no more than 5dB above background. This situation is among the criticisms within the latest Hayes McKenzie critique.

5.14 A second difficulty, however, is that the noise condition is in effect unenforceable, because the ultimate sanction – closing and demolishing the windfarm if it failed to meet the noise condition – could never be applied. Permanent closure would be argued to be wholly disproportionate and, maybe after a great deal of legal argument, the installation would be allowed to be retained but emitting higher noise levels. Any other development that failed to meet noise limits has available to it technical mitigation measures. A quarry can adjust its working boundary, improve silencing of mobile plant, or build a larger acoustic bund. A factory can install better wall insulation. A night club can have its hours limited. There is no comparable sanction upon wind farms, because there are no technical mitigation solutions other than switching it off. Therefore, even ignoring the micro-siting issue, the condition is in practise unenforceable. With micro-siting, the risk becomes that much worse.

[73] See MPS2, Annex 2 (Noise), which dates from March 2005. Its advice is therefore later than PPS22 which is 2004. While wind farms are not mineral developments, the sensitivity of receptors is not changed if identical noises occur from sources covered by different guidance.

5.15 Therefore, such a condition fails the test of ability to enforce set out in Circular 11/95[74] and should not be imposed. As the Circular states, "*It is often useful to consider what means are available to secure compliance with a proposed condition*" but:

"*Sometimes a condition will be unenforceable because it is in practice impossible to detect a contravention*" and "*A condition may raise doubt about whether the person carrying out the development to which it relates can reasonably be expected to comply with it. If not, subsequent enforcement action is likely to fail*…"

5.16 As argued above, this is exactly the difficulty. Inherent in many noise complaints is the difficulty of replicating the circumstances that gave rise to the complaint, often several days beforehand. Weather and operational conditions are unlikely to be identical. So, notwithstanding that windfarms often are subject to noise conditions that include a requirement to monitor in response to complaints, in reality that is likely to be ineffective, and almost useless if complaints result from an unusual conjunction of independent events. But, noise conditions are required before a windfarm could be permitted. Therefore, if the condition cannot be enforced and, even if enforceable, there can be no realistic sanction for failing to comply with it, a windfarm should not be permitted. That is still more the case now Hayes McKenzie identify significant difficulties with ETSU-R-97[75].

5.17 Another difficulty is that Figure 7.15, demonstrates that the turbine noise level at Long Acre, Churchover, will be at worst just under 38dB at the highest wind speeds considered. During the night, the derived prevailing background noise is below 42dB and adding those two together gives less than 43dB. If SSE has confidence in its noise assessment, then they should also be confident to accept a noise limit of 43dB <u>without</u> the get-out provision of 5dB above background. If they do not have that confidence then little trust can be placed in their assessment.

5.18 A final observation on noise is contained in a recent appeal decision. An Inspector dismissing an appeal at Nantglyn, North Wales, in 2009[76] was sceptical about ETSU-

[74] DoE Circular 11/95, "The Use of Conditions in Planning Permissions" (July 1995), paragraphs 26-8
[75] It may be noted that SSE are reported as failing to comply with noise conditions on their Achany windfarm, Sutherland, which has been issued with a temporary stop notice. Complainants alleging noise nuisance lived "just 2km" away from some of the turbines [Northern Courier, 9 June 2011]
[76] APP/R6830/A/08/2074921; development of 13 x 125m turbines

R-97. Noting that this was the source for standards normally applied in Wales, he had no doubt that the proposed windfarm could comply, but he added:

> "… ***however they are for guidance and are not absolute values. The problem is that those noise levels do not mean that the turbines cannot be heard***." [CPC emphasis]

5.19 That is the commonsense conclusion. Even if the Churchover proposal could meet its proposed noise conditions – and the developer's omission any consideration of low frequency sound or AM impacts means there is no evidence that nuisance can in fact be avoided by imposing any condition – there will be a change in Churchover's noise environment for the worse. It is well known that visually screening noise sources by trees does not alter received noise as measured but that, psychologically, many people perceive the noise to be less if they cannot see its source. In this case, the converse is true: the source of the noise cannot be hidden because the turbines will be blatant close-range visual dominations. As such, even if noise levels as measured complied, they are likely to be perceived as worse. Further, as the reasonable fear of nuisance – which is the fear of several residents – is a material planning consideration, it seems very probable that the development will in fact cause a noise nuisance, either from non-compliance with noise conditions; non-enforceability of noise conditions; noise impacts from frequencies not covered by conditions; or the reasonable fear of any of these.

5.20 The above is acknowledged in the ES where it states "*there is no significant shielding of any noise receptor at this site*."[77]

Green Belt

5.21 Among the longest standing and most robust land use planning policies are those creating and protecting Green Belt (GB) land. They are set out in Planning Policy Guidance Note 2 (PPG2). Unless development is comprised within certain limited categories, it is by definition inappropriate within the GB and therefore by definition harmful. In the present instance, 2 of the 9 turbines lie within the West Midlands GB. In addition the remaining 7 turbines are located just outside the GB and guidance is:

[77] ES page 179, paragraph 7.5.8.1

"*3.15 The visual amenities of the Green Belt should not be injured by proposals for development within* ***or conspicuous from*** *the Green Belt which, although they would not prejudice the purposes of including land in Green Belts, might be visually detrimental by reason of their siting, materials or design*." [CPC emphasis]

5.22 Therefore, the whole development is subject to GB policy, directly, or indirectly as above.

5.23 Of the five purposes[78] of including land within GBs, "*to assist in safeguarding the countryside from encroachment*" is clearly contravened, both inherently through the fact of encroaching upon the countryside, and because of the door it opens to future encroachment on brownfield land.

5.24 In relation to the few types of development which are appropriate in GBs, the only possible one relevant to windfarms is: "*essential facilities for …. other uses of lands which preserve the openness of the Green Belt and which do not conflict with the purposes of including land in it*." As the proposal does conflict with one of the purposes of including land in the GB, this exemption is not available; nor does the development preserve the openness of the GB.

5.25 It is therefore necessary that the developers demonstrate very special circumstances, but no attempt has been made to do so. One other exception occurs in paragraph 3.15 in relation to large-scale development of GB land, which should, so far as possible, "*contribute to the achievement of the objectives for the use of land in Green Belts*." This applies to both appropriate development and inappropriate development justified by very special circumstances. As one of those objectives[79] is "*to retain attractive landscapes, and enhance landscapes, near to where people live*" the proposal clearly would breach that principle.

Public Rights-of-Way (PROW)

5.26 In additional to full public highways, used by all vehicles, the relevant PROWs in and extending beyond the parish boundaries are:

[78] PPG2 paragraph 1.5
[79] PPG2 paragraph 1.6

- *Byway and National/regional cycle network route*
  - R334 – northeast from Church Street to A5 via Black Spinney
- *Bridleways*
  - R62 – from byway R334 just north of Church Street northwest to Cestersover Farm and then Lutterworth Road
- *Footpaths*
  - R63 and R63a – northeast from Church Street, across River Swift to A5 at Bransford Bridge
  - R66 – west-northwest from Church Street across River Swift to old Leicester railway and on to Montilo Lane and Tythe Farm
  - R98 – from The Green west across River Swift and Montilo Lane
  - R296 – north/south route connecting R98, R66 and R62, then north from Cestersover Farm to Walton Lodge Farm
  - R297 south from R98/R296 via Harborough Fields Farm and then west to Montilo Lane
  - R99, R100, R100a and R101 – a series of paths connecting Harborough Road and the ford with the M6/canal feeder underbridge.

5.27 To a greater or lesser extent, all of these PROWs afford 'excellent' views of parts or all of the proposed windfarm. The routes that would especially impacted visually are those either crossing the valley floor, or running along the valley sides; all, in fact, except R99 and R100 although the development will not be completely concealed from those.

5.28 The effects upon PROWs will be three fold.

5.29 First, the detriment to the immediate landscape. Virtually all these PROWs afford excellent views of Churchover village, its CA and its landmark church spire. In every case, the quality of the view will be damaged or destroyed, by the excessive scale of the turbines relative to the church spire – five times the height. That impact will be aggravated when the blades rotate, and by any noise or vibration impacts.

5.30 Second, all except two turbines will be extremely close to PROWs:

- Turbine 7 lies within 75m of R66 and R296

- Turbine 8 is within 100m of R66
- Turbine 1 is within 150m of R63
- Turbine 5 is within 200m of bridleway R62
- Turbine 2 is within 200m of R63
- Turbine 6 is within 250m of bridleway R62

5.31 That will create a looming, overbearing, and possibly a toppling visual effect that will deter people from walking the routes or prevent their enjoyment of doing so. With the proposed hub height of 80m, the tip of the blade will be variously at between 126m and 34m above ground, depending upon where it is in the rotational cycle. Standing just 75m from a 92m diameter blade rotation circle at 34m above one's head could be terrifying, the more so if the plane of rotation is at right angles to the footpath, when it will be nearly overhead. The overall effect upon walkers will be extremely intimidating.

5.32 Third, the noise from blade rotation would destroy any semblance of a peaceful country walk. None of the noise assessment considers this aspect. Added to the visual effects, the combination is likely to prove daunting.

5.33 PPS22 notes[80] that there is no statutory distance between PROWs and turbines, but often fall-over distance (126.5m minimum in this case) is taken to be acceptable, and there should be no over-sail of the turbine blade above the PROW. The 75m separation distance of turbines 7 and 8 is less than the fall-over distance of 126.5m, and turbine 1 is almost within it[81].

Effects on horse riding

5.34 Equestrian activities are common and widespread in and around Churchover, where there are several livery yards, and therefore the effects of the proposed development on equestrianism are very relevant.

[80] PPS22, Companion guide, p.172 paragraph 57
[81] 150m stand-off is more than 126m, of course, but anyone who has seen trees blown down in very strong winds (a situation in which wind turbines are quite likely to topple if they are ever going to) knows that the force of the wind can carry a tree (or turbine) some distance from its original position, so that toppling onto a PROW 150m away is possible.

5.35 Turbines 5 and 6 lie within 200-250m of bridleway R62. The British Horse Society has issued guidance on stand-off distances from windfarms, which is that:

> "*as a starting point when assessing a* [windfarm] *site and its potential layout, a separation distance of four times the overall height should be the target for National Trails and Ride UK routes, as these are likely to be used by equestrians unfamiliar with turbines, and a distance of three times overall height from all other routes, including roads, with the 200m recommended in the Technical Guidance to PPS 22 being seen as the minimum, where it is shown in a particular case that this would be acceptable. The negotiation process recommended in PPS 22 should indicate whether, in the particular circumstances of each site, these guidelines can be relaxed or need strengthening to minimise or eliminate the potential difficulties*.

5.36 Therefore the BHS recommends a minimum distance of about 500m between main horse routes and about 375m for all others. This compares with the 200-250m now proposed, and the minimum 200m recommended in PPS22[82]. Moreover, the 200m is the *minimum* and only acceptable subject to negotiation around specific site characteristics.

Effect on other recreational activities

5.37 Of all recreational activities, among the most "quietly contemplative" must be angling. Warwickshire flyfishers hold rights to the north bank[83]. They stock the river annually and fishing within 150m of two turbines (numbers 1 and 2), at least, will be the antithesis of quiet enjoyment, not least because of the noise impacts.

5.38 The quiet enjoyment of other rural pursuits, including riding to hounds and rough shooting, will also inevitably be damaged by wind turbines within 150m.

Temporary Nature

5.39 Planning permissions granted for windfarms are typically subject to conditions limiting their life to 25 years (the period of the guaranteed subsidy) and requiring

[82] PPS22, Companion Guide p172, paragraph 56.
[83] http://www.warwickshireflyfishers.co.uk/3.html

demolition and ground reinstatement at the end of that time[84]. That is proposed in this case.

5.40 Apart from the highly questionable equation of 'temporary' with '25 years', such a view is inconclusive because, as SNH say: "… *it is possible that existing well designed windfarms may remain in use well beyond 25 years, with turbines refurbished or replaced and a planning consent renewed* …".[85] Elsewhere[86], this has been referred to by CCC as "*repowering existing sites*". There are three issues here:

1. If a development is unacceptable, then being unacceptable for "only" 25 years is no improvement. 25 years is a substantial portion of anyone's life. In Churchover, perhaps 20% of current residents will have died by that time so, for them, it is not 25 years but the whole of the rest of their lives.

2. Second, as SNH and other sources note, there is nothing to prevent the developer seeking to renew/extend the life of a planning permission at any time, and this planning application hints at it. A section 106 agreement does not prevent it[87].

3. Third, under current guidance, the land will be brownfield from the moment that the windfarm is developed. The consequence of that is illustrated in Rugby, perhaps better than any other UK site, by the British Telecom Mast Site near Clifton. Having accommodated many radio masts, for some eighty years (the masts themselves being mostly very much shorter, 'transparent' and skeletal compared with wind turbines), much of the site was cleared in 2008 and is now (as it always was) agricultural. However, despite returning it to, visually, green field status it remains classed as brownfield. It is now allocated and in the process of gaining planning permission for major development including up to 6200 dwellings and 31-60ha employment land. There is nothing to prevent that happening at Churchover[88].

[84] For example: SNH *op cit* p.5, paragraphs 2.14 – 2.16
[85] SNH *op cit* p.5, paragraph 2.16
[86] CCC, *op cit*
[87] Indeed, the only apparent means of preventing extensions being sought would be if SSE passed their rights to the land to CPC, which it is improbable that SSE either would (or perhaps could) do. There may however be other legal mechanisms.
[88] Nor is it a far-fetched fear; linking Magna Park and Swift Valley Park could well occur to a strategic planner, let alone landowners.

5.41 Obviously, a 25 year limit followed by restoration at Bransford Bridge could not be relied upon to have any meaning whatever in terms of a decision upon the present application.

5.42 As was argued in respect of noise, above, a 25-year limit by condition is probably also unenforceable (Circular 11/95) and might fail a trst of reasonableness[89].

Shadow flicker

5.43 In the period late-May to early-September turbines 7, 8 and 9 will be perceived against the setting sun when viewed from the churchyard and Church Street properties. The close conjunction of three turbines is likely to create a flickering effect which is likely to be unacceptably irritating. PPS22 Companion Guide[90] deals with the problem in terms of both outside and inside properties.

5.44 The guidance is that the effect is most likely at distances up to ten times the rotor diameter which, here, is 92m – and therefore any property up to at least 920m distance and in line with the turbine(s) and sunset is vulnerable.

5.45 All the Church Street (west wide) properties are 800-950m distant and are therefore vulnerable to shadow flicker and the recommended solution, turning off the turbines at relevant times, is hardly consistent with maximising their already-feeble efficiency[91].

Safety

5.46 The main safety issue is thought to be ice-shedding and PPS22's Companion Guide[92] is unduly optimistic that icing of turbine blades could occur on less than one day a year; it could occur on any day when ice forms on any other aerial structure – telephone wires, trees, etc. Given the close proximity to public rights of way

[89] Especially so given paragraphs 35-36 regarding "unduly restrictive" or limiting the freedom of owners to dispose of their property. Once again, such a condition is required to make windfarms acceptable, but fails the Circular 11/95 test.
[90] Page 176-177 paragraphs 73 – 76.
[91] Note that shadow flicker, perceived inside rooms, is sometimes argued as different from intermittent casting of shadows experienced elsewhere. However, either can be extremely irritating.
[92] Page 178 paragraph 79.

(discussed above) there is a clear safety risk. Indeed, other windfarm operators specifically warn against the risk (see Figure 2).

Reflections

5.47 PPS22 warns[93] that annoyance caused by reflected light cannot be eliminated. It is important to note that reflections from the temporary 80m-high meteorological mast already cause nuisance to certain people and this can only increase if the turbines are built.

Health

5.48 PPS22 notes[94] that photo-sensitivity can be a problem for epileptics. CPC is unaware that SSE has any knowledge of the medical conditions of Churchover residents. It may also be relevant to add that the 56 residents of St Mary's Care Home, 1800m distant, include people with Alzheimer's disease and Dementia. SSE seems not to have considered any health risks associated with such medical conditions.

[93] Companion Guide page 177 paragraph 78
[94] Companion Guide page 177 paragraph 77

6.0 Associated Infrastructure

6.1 The above analysis has largely concentrated upon the wind turbines themselves. Ancillary developments – grid connections, access tracks, construction impacts, switching buildings, security, etc – are also of importance. Although in themselves such facilities might not be so objectionable as to justify refusal on their own characteristics (and few if any appeal cases appear to have turned upon associated infrastructure as opposed to the turbines themselves), ancillary infrastructure taken in conjunction with the turbines could, cumulatively, aggravate environmental impacts and create, or add weight to, a case of refusal of the overall development. The sections below set out CPC's concerns about the elements of ancillary development associated with the main development.

6.2 The worst adverse impact of the present proposal is the access road connecting the turbines and the associated hard standings for cranage. Contrary to the public exhibitions, when these tracks were presented as being "like farm tracks", what is proposed is clearly more akin to a substantial public highway[95].

6.3 The basic track width will be 5.5m (equivalent to a secondary 'B' class public highway, with soil banks on either side for around 4m width, giving a basic total width of 13m or so. The road will lie within or upon 2.0-2.5m cuttings and embankments and there will be cable trenches (and no doubt cable markers) alongside. The permanent cranage stands will be some 600m^2 each. All surfacing will be compacted ballast/Type 1 materials.

6.4 The specification is not remotely like a farm track and will not be remotely acceptable in the landscape. It is noteworthy that of the photomontages created by the developer, not one includes any representation of the tracks and standages. The visual impact is ignored.

6.5 Additionally, in certain locations (notable in the area of turbine 1 and the A5 access, these works will destroy areas of increasing scarce ridge-and-furrow.)

[95] Figures 5-2-1, 5-2-2, 5.3, 5.4

6.6 Overall, this road and standages are, of themselves, unacceptable in the landscape and in their damage to heritage assets.

7.0 Compliance with PPS22

7.1 As the principle planning guidance relative to this proposed development, PPS22 deserves a specific and detailed review. PPS22 is not the indiscriminate policy bulldozer promoting windfarms that is sometimes alleged. It is often said that PPS22 creates a presumption in favour of renewable energy in general and wind turbines in particular. That is to misinterpret and this section sets out both the correct interpretation of PPS22 and an assessment of the proposed development against its key requirements.

7.2 PPS22[96] firstly sets out the Government's twin aims of:

- cutting carbon dioxide emissions by 60% by 2050, and making "*real*" (but unquantified) progress by 2020 (taken from The Energy White Paper, 2003); and

- " *to maintain reliable and competitive energy supplies*."

7.3 Proponents of wind turbines ignore this fundamental element of national planning policy by concentrating on alleged benefits of securing carbon reduction while ignoring the equally ranked Government aim of reliability and competitiveness. Above, we have already demonstrated that wind turbines, by lying idle or underused for much of the time and operating only unpredictably, as well as requiring a substantial subsidy, clearly fail both "reliable" and "competitive" tests.

7.4 Next, PPS22 identifies[97] the Government's target of generating 10% of all UK electricity from renewables by 2010, and quantifies the 2020 target as 20%. In 2010 the actual achievement[98] was 7.8%, from biomass, hydro, onshore (1.9%) and offshore wind. It continues: "*Positive planning which facilitates renewable energy developments*" can (but, note, not "will") contribute towards the Government's sustainable development strategy.

[96] PPS22, p.6, first paragraph
[97] PPS22, p.6, second paragraph
[98] DECC 2010 Energy Statistics as quoted in The Times 1/4/2011

7.5 These aspects are dealt with separately in section 8, below.

7.6 "Positive planning" would appear to be embodied in a series of "key principles" set out in PPS22 paragraph 1 which are to be followed by Local Planning Authorities (LPAs). The relevant ones are given below[99], with a commentary on each:

(i) Renewable energy developments should be capable of being accommodated throughout England in locations where the technology is viable and environmental, economic, and social impacts can be addressed satisfactorily.

7.7 COMMENT: this merely states that renewable energy developments should be acceptable where they are acceptable. The issues to be addressed by decision makers are viability, environmental, economic and social ones, all given as ranking equally. This does not in any sense create a presumption in favour of wind turbines in particular or renewable energy developments in general.

(ii) Regional spatial strategies and local development documents should contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources. Regional planning bodies and local planning authorities should recognise the full range of renewable energy sources, their differing characteristics, locational requirements and the potential for exploiting them subject to appropriate environmental safeguards

7.8 COMMENT: This requires that Local Development Documents (LDDs) should promote renewable energy developments but it is heavily qualified by the requirements (a) to recognise the full range of technologies and not just wind turbines, and (b) to recognise the need for "*appropriate environmental safeguards*". Applied at development control stage, it is perfectly legitimate – indeed, inherent in decision-making – that where "*appropriate environmental safeguards*" cannot adequately mitigate environmental damage a development should be refused. This paragraph therefore does not in any sense provide a "green light" to over-ride environmental protection.

(iii) At the local level, planning authorities should set out the criteria that will be applied in assessing applications for planning permission for renewable energy projects. Planning policies that rule out or place constraints on the development of all, or specific types of, renewable energy technologies should not be included in regional spatial strategies or local development documents without sufficient reasoned justification. The Government may intervene in the plan making process where it considers that the constraints

[99] Quoted in full unless noted; irrelevant ones omitted.

being proposed by local authorities are too great or have been poorly justified.

7.9 COMMENT: Rugby Borough Council thus far has no such criteria or policy, excepting Local Plan (2006) policy GP5 which requires careful consideration of design, landscape and siting, and no material harm to residential amenity and the environment. Once again, this PPS22 policy is far from a presumption in favour of wind turbine development. Indeed, it expressly allows LPAs to promote policies which place constraints upon wind turbine development provided there is "*sufficient reasoned justification*". Such justification would certainly include assessments of environmental damage, either inherent in the technology or dependent upon site constraints. Indeed, Rugby Borough Council's Landscape Capacity Study acknowledges this[100] by identifying certain landscape character types which can, or cannot, accept wind turbines. That study thus provides "*sufficient justification*" to reject windfarms in such locations as a matter of policy.

(iv) The wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining whether proposals should be granted planning permission.

7.10 COMMENT: This is an important qualification because if the "*wider environmental and economic benefits*" are "*material considerations that should be given significant weight*" it is inherent that the developer must demonstrate those benefits exist. They are, indeed, important components of proving need and can be challenged. There is no presumption that wider benefits are automatically inherent in wind turbine proposals; PPS22 at page 6 (the Government's four planks of sustainable development) specifically says that reductions in emissions and economic growth from renewable energy development "*can contribute*", not "*will contribute*". The conditionality of the guidance thus leaves the matter open to proof or disproof. The planning application nowhere gives this proof.

7.11 Earlier, it has been demonstrated that onshore windfarms have proved incapable of delivering "*wider environmental*" benefits; indeed, because of the need for stand-by

[100] White Consultants, "*Rugby Borough Landscape Capacity Study for Wind Energy Developments*" Final Report, March 2011. See para 2.10, which acknowledges the importance of an evidence base for policy, to avoid arbitrary restrictions.

capacity, there is little evidence that even the minimal amount of electricity they do generate has enabled any significant CO_2 saving[101].

7.12 It is especially worthy of note that the Warwickshire Climate Change Strategy's modelling[102] suggested that no less than 83 wind installations comprising large (>1.5MW) turbines on sites in the county with wind speeds >6.5m/sec would create just 8 "*long-term local jobs*" across Warwickshire. As the turbines themselves, and the majority of the civil engineering involved in their deployment, would originate from outside the county and be temporary in any case, the economic benefits would appear locally to be non-existent[103].

7.13 Finally, the ROC regime imposes financial penalties upon all electricity consumers, in order to extract the subsidies required to encourage renewables. Therefore, not only are there no economic benefits locally (or indeed nationally, with major industries rebelling against artificially high energy costs and the damage caused thereby to national economic recovery), there are active economic disbenefits to all consumers.

(vi) Small-scale projects can provide a limited but valuable contribution to overall outputs of renewable energy and to meeting energy needs both locally and nationally. Planning authorities should not therefore reject planning applications simply because the level of output is small.

7.14 COMMENT: this is directed at small scale projects and not small scale outputs, not developments of the type represented by the current proposal. However, because in 2010 wind turbines were barely 22% efficient (that is, they were nearly 80% inefficient and have never been better than 74% inefficient) it may be appropriate to comment that this paragraph is not saying that because the level of output from a physically large-scale project is small-scale due to the inherent inefficiency of the technology, a large inefficient project could be acceptable. Would any LPA permit an

[101] An interesting comparison is with Drax (Yorkshire) coal-fired power station, which supplies no less than 7% of UK electricity. Most observers would regard it as a blight on the landscape, but it affects only a tiny fraction of the thousands of square kilometres of some of Britain's finest landscapes that have been sacrificed for the 1.9% of UK energy produced by windfarms. If carbon capture and storage techniques do emerge as practical contenders, building a neighbouring "Drax Mk2", indeed, would cause almost no extra damage to landscape, unlike finding a further 7% of UK energy from wind. It is worse than ironic that renewable technology purporting to "save the planet" causes far greater environmental damage than conventional carbon-fuelled technology in landscape terms, at least.
[102] Warwickshire's Renewable Energy Resources – 10% Scenarios Report
[103] As confirmed in the ES Vol.2 paragraph 4.6.2.1 which says that the turbine components would be delivered to various docks, and therefore originate overseas.

estate of 100 new houses knowing that 74 of them would never be unoccupied due to their unsuitability to the task in hand (providing housing)?

(vii) Local planning authorities, regional stakeholders and Local Strategic Partnerships should foster community involvement in renewable energy projects and seek to promote knowledge of and greater acceptance by the public of prospective renewable energy developments that are appropriately located. Developers of renewable energy projects should engage in active consultation and discussion with local communities at an early stage in the planning process, and before any planning application is formally submitted.

7.15 COMMENT: It is an interesting and revealing underlying assumption of this paragraph that the community is presumed to be against renewable energy developments and needs to be educated to accept them[104]. It says nothing – or, rather, nothing creditable – about the Government's view of its electorate! However, the key part of this compulsory education process is that developments are "*appropriately located*". Until CCC recommended bribery and changing the law, there was until now no suggestion that the community should be "educated" to accept inappropriately located developments, and therefore the unsuitability of the location remains a highly material consideration.

(viii) Development proposals should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures.

7.16 COMMENT: The extent to which the developer has demonstrated any environmental benefits is zero; while the worth of the proposed environmental impact mitigation is virtually nil. Reference has already been made to the Warwickshire study which reckons just 8 Warwickshire jobs from 83 "typical" windfarm installations – i.e effectively zero economic and social benefits.

7.17 The next sections of PPS22 deal with regional (virtually abolished) and local policy making and, as already noted, there is effectively no policy in Rugby. The CS refers to sustainable design and construction (policies CS17 and CS18), but that is a very different issue from renewable energy generation.

[104] This is a particular form of the general "informed consent" rhetoric, where no opinion can be "informed" unless it agrees with the official view. No "informed" person could object to wind farms in principle…could they? The CCC view on how to force people to accept windfarms – referred to above – is also relevant in this respect when, after acknowledging that even bribery will probably not achieve general acceptance of windfarms, it suggests that the law will have to be changed to compel approval.

7.18 PPS22 in paragraph 16 makes but misapplies the obvious statement that "*As most renewable energy resources can only be developed where the resource exists and where economically feasible, local planning authorities should not use a sequential approach in the consideration of renewable energy projects* ….".

7.19 This betrays a fundamental misunderstanding: obviously, no renewable energy resource can be developed where the resource does not exist, but the question is what conclusions should flow from that. One conclusion that certainly does not flow is that windfarms are justified wherever the wind resource exists.

7.20 Renewable energy resources are identical to (non-renewable) minerals in this respect: neither can be exploited except where they exist. In the case of widespread mineral resources (aggregates especially), policy requires that the choice of possible sites within extensive resource areas is made on environmental impact grounds. So, too, with a widespread resource, wind, exploited by wind farms. Over much of Warwickshire and Leicestershire, the wind resource – a minimum of about 6m/s, which is at the very margin of windfarm needs – is geographically very extensive and actual deliverability depends upon environmental/planning constraints. This was the conclusion of the Warwickshire Renewable Energy Resources study, although little reliance can be placed upon its constraints analysis, because it ranks a list of obviously differently weighted constraints as if they were equal (e.g. constraints imposed by European law such as SPA, SAC are ranked equally with UK non-statutory designations such as SLA or AGLV)[105].

7.21 PPS22 from paragraph 18 onwards sets out a series of "Other Considerations" and these (and other) environmental impact topics have already been dealt with under their various headings, earlier in this objection.

[105] This was to some extent remedied in the CAMCO study:" Renewable and Low Carbon Energy Resource Assessment and Feasibility Study", CAMCO, April 2010 (report to Warwickshire and constituent authorities), which did rank constraints to some degree, but imperfectly.

8.0 NEED AND VIABILITY

8.1 PPS22 has at its heart both need and viability. Proving 'need' for a development is not usually required for planning permission to be granted. But, the number of exceptions has increased during recent years, so as to make it much more usual that 'need' must be proved, especially in situations where normal planning policy is to be contradicted in the interests of some alleged wider benefit. Examples of traditional instances where 'need' in various guises is a material planning consideration, include:

- exception and affordable housing, where 'need' can justify the grant of permission on land not otherwise acceptable for development[106].

- mineral developments where landbank depletion can justify a development on the basis of the need outweighing the harm[107].

- greenbelt development, where need for the development, plus need for the development in a GB location, can provide or contribute towards Very Special Circumstances[108].

8.2 Wind turbines are a more recent introduction to this list, because PPS22 seeks to facilitate permitting renewable energy development, subject to environmental safeguards, and hence sets up the opportunity – indeed requirement - to demonstrate that need outweighs harm, exactly as for exception housing, mineral development and very special circumstances in Green Belts. It may suit the windfarm industry to pretend otherwise, but a recent appeal decision confirmed this is a correct interpretation[109]. The Inspector said:

> "*… it is important to deal with need and benefits. These are important elements in the overall planning balance*."

[106] E.g. PPS3, Housing, paragraph 30
[107] E.g. MPS1, Practice Guide, paragraphs 70-72
[108] PPG2, paragraph 3.2
[109] APP/G0908/A/10/2132949, 6 May 2011, at Wigton, Cumbria: see paragraph 20.

Windfarms – The General Background

8.3 Although the merit of windfarm development in general is not a planning matter, *per se*, two specific aspects are very definitely planning matters – need and viability of any particular proposals. The whole basis of Government policy on energy, and specifically Planning Policy Statement 22 (PPS22) "Renewable Energy" (2004), is that an increase in the proportion of UK energy supplied from renewable sources is <u>needed</u> to meet climate change challenges, and that such sources must be <u>viable</u>. Therefore, as a background for evaluating the environmental and planning compliance or otherwise of the present application, it is important to review need and viability.

8.4 Since the first significant UK windfarm was installed at Delabole, Cornwall, in 1991 concern about climate change has switched completely, from fears about global cooling, to global warming.

8.5 World, European and UK policy now leans towards reducing CO_2 emissions to atmosphere from the combustion of fossil fuels. Of the many ways potentially available, one is to increase the proportion of energy supplied by renewable sources. Of the diverse range of renewable technologies now encouraged, which range from the well-proven to the speculative, wind turbines are just one.

8.6 They are, however, well-proven. What they can achieve, and what they cannot, are both known and although continued development of ever-larger and/or more efficient machines and installations (including offshore windfarms) will no doubt continue, the underlying parameters of their application are understood. The fundamental electricity generating characteristics relevant to wind turbines of the sort for which planning permission is sought are as follows:

- They require a minimum average wind speed of around 6.5m/sec[110]
- They provide only intermittent power, failing to generate when wind speeds are too low, or being turned off when the wind is too strong or when the power is not required at all[111]

[110] Mapping Warwickshire's Renewable Energy Resources (WCC 2006). In fact, the present proposal would seek to harvest a wind resource of only 6.3m/sec (Environmental Statement paragraph 4.7.1)

- Despite frequent statements from the industry to the effect that "the wind is always blowing somewhere" in the UK, it has not so far proved possible to rely upon aggregating the output of many windfarms to provide in combination a predictable source of electricity. While future developments in "smart" technology[112] may or may not improve matters to some degree, the current and foreseeable facts are that:
  - Backup power generation, often carbon-based, is required to cover for periods when windfarms cannot produce, sufficiently or at all[113].
  - When power is most needed, as during very cold weather, wind speeds are likely to be minimal and wind turbines therefore tend to contribute least when they are most needed[114].
- As a result of these resource limitations and the cost of capital to construct windfarms, the technology is not economic. Instead, wind power has to be subsidised (via the Renewable Obligation Certificate [ROC] mechanism[115]) and is guaranteed revenue over a period of 25 years[116].

8.7 Putting aside the planning and environmental difficulties that afflict windfarms, to which specific reference has been made earlier in this objection, these technical limitations have not prevented the expansion of windfarms since subsidies became available. Department of Energy & Climate Change (DECC) statistics[117] disclose that the capacity of onshore windfarms increased between 2005 and 2009 from

[111] Overnight 5-6 April 2011, six Scottish windfarms were paid £875,000 not to generate electricity because it was not required in Scotland and could not be sent to England [Sunday Times, 1 May 2011]. Also, on several days in December 2010 – an extremely cold month – wind turbines could produce less than 1% of UK electricity needs – on 30 December 2010 as little as 0.04% - against a target of 4%.
[112] What the independent Committee on Climate Change (CCC, the Government's advisers on the subject) describe as "managing intermittency".
[113] The windfarm industry seeks to play this down, but their umbrella organisation RenewableUK's leaflet "Top 7 Wind Farm Myths Dispelled" (Fact Sheet 01, August 2010), admits that a 30% back-up of traditional generation will be required. If 33GW of installed wind capacity is ever constructed, it would need 7-10GW of traditional back-up. But, an installed 33GW wind capacity would yield only about 8.9GW of electricity (at 27% Load Factor), equal to the back-up required.
[114] See for example The Times, 2 February 2011: Lack of wind raises fears for future of green energy., which comments upon figures reported by, coincidentally, SEE following shareholder concerns
[115] CCC, The Renewable Energy Review, May 2011. The ROC establishes compulsory minimum purchase prices for electricity purchased from different renewable sources. For onshore windfarms, the implied subsidy is 4.8p/kWh, four times the subsidy given to landfill gas, for example, but less than the 7.2p/kWh implied for offshore windfarms [Table 2.1, p.98].
[116] An apt description of this financing process is "subsidy farming", a parallel which derives from the "smoke farming" associated with metal smelting. Historically, farmers repeatedly sought and obtained compensation payments from metal smelters for air pollution damage to their crops. Eventually, subsidies became so normal that farmers ceased growing all together and just harvested subsidies. The renewable energy sector unfortunately is very similar.
[117] DECC Restats, Table 7.4 and https://restats.decc.gov.uk/cms/assets/Uploads/Results_2009/Regional-2009/Regional-spreadsheets-2009.xls; 2010 data not available at the time of writing.

1351.2MWe to 3483.2MWe (an increase of 257%). Other renewables also increased capacity, but at a lower rate (by 143%).

8.8 The amount of energy actually generated from onshore windfarms increased from 2501GWh to 7564GWh (302%) over that period.

8.9 Although that reads in some ways as good performance, the actual utilisation of the assets as expressed by the load factor (LF) – the proportion of installed capacity which is actually realised – have not only *not* improved, but have deteriorated slightly. Onshore LFs have remained stuck at between 26.4% and 27.5% since 2005 and, measured on an "*unchanged configuration*" basis, have actually declined[118].

8.10 Put another way, this is equivalent to a situation in which, for 70-75% of the year, on average each wind turbine will not be producing anything[119]. It is difficult to think of any other major asset investment, in the energy field or otherwise, that would be built to sit idle 75% of the time, bearing in mind the environmental purpose in building it and the environmental and monetary costs imposed in subsidising it[120].

8.11 DECC and CCC data and analysis also demonstrate the relevant point that the onshore wind industry could well be reaching its peak and suffering from diminishing returns[121].

8.12 DECC illustrates graphically the location and installed capacities of UK windfarms (see Figure 3 attached)[122]. It depicts what is, intuitively, obvious. Onshore windfarms with large installed capacities (>30MW) are concentrated in the windiest locations, the most exposed (coastal or altitude) sites of UK terrain. In a few areas, notably The Wash, some 10-30Mw windfarms exist, probably because the low population densities minimises objections.

[118] Offshore wind is not much better.
[119] In fact, the turbines operate for longer than 25-30% of the time, but at much less than their rated output. Therefore, the visual nuisance from blade rotation is extended throughout the year but little or no useful electricity is generated to compensate for that nuisance.
[120] One might accept low utilisation for some facilities – schools, offices, etc – but where development is undertaken expressly to combat climate change a 27% LF is surely unacceptable.
[121] This is common to all natural resource businesses, including for example oil and other minerals. At first, the best, most accessible and cheapest resources are exploited. As these diminish, resources of lower quality, less accessible, and more costly to exploit, become viable and, as time progresses, still worse quality, smaller and more expensive resources must be used. North Sea oil illustrates this law of diminishing returns perfectly, as does the effect of imposing on North Sea oil a further profits tax (equivalent to reducing a subsidy in financial terms), resulting in threats not to develop.
[122] http://restats.decc.gov.uk/cms/wind-farm-capacities-map/

8.13 But, the central Midlands – east West Midlands and west East Midlands – have few windfarms of any capacity. That is an excellent illustration that developers are now entering a period of diminishing onshore returns[123]: the best locations have already gone and what is left cannot be developed at all without the ROC subsidy and, even then, will not be very productive. The static/ slightly declining LF figures for onshore wind are consistent with the suggestion that the law of diminishing returns has already kicked in.

8.14 The most recent study relevant to the Rugby area is by Maslen Environmental, March 2011[124]. It notes that Rugby has a potential capacity for "commercial" [*sic*] wind of 1336MW, of which only 27% is likely to be generated due to poor load factors. That potential was based upon DECC estimates that suitable areas would have average wind speeds of >5m/s but, the report notes[125], "*local stakeholders consider a wind speed above 6m/s agl*[126] *more realistic, which would reduce the capacity further*." SSE considers 6.3m/sec sufficient[127].

8.15 This has important echoes in PPS22 Companion Guide which notes[128] that a turbine on a site with a mean wind speed of 6m/s (as at Churchover) will typically produce only half as much energy as the same machine on a site averaging 8m/s. In other words, a 25% drop in mean windspeed results in a 50% drop in electricity production. The inherent inefficiency renders proposals such as this nonsensical: the same amount of environmental damage as would be incurred in a windier location yields only 50% of the electricity from locations such as Churchover.

8.16 CCC endorses this view[129]. It says that onshore wind "*is limited in the long term by site availability*"[130]. Indeed, they go much further. Ranking the lead technologies

[123] And with the benefit of subsidies
[124] Maslen Environmental "*Renewable energy capacity study for the West Midlands*", report to Telford & Wrekin Council and others; T&WC was acting as agent for all West Midlands Councils
[125] "Data Dashboard" for Rugby. "*In order to take forward and encourage deployment of this resource, further work would need to be undertaken with regard to landscape sensitivity, cumulative impact and overall environmental impact*" as the capacity estimate takes not heed of constraints but is simply based on an capacity of 9MW per km^2 of land.
[126] agl = above ground level
[127] ES page v43, paragraph 4.7.1
[128] Section 8 p 164 paragraph 29
[129] CCC, op cit
[130] Includes planning permission availability

considered, they state that the "*Estimated practical resource*[131] *for UK renewables*" of onshore wind is only the fourth largest, 83TWh/a, as opposed to Tidal Stream (116TWh/a), Solar PV (140TWh/a) and Offshore wind (404TWh/a).

8.17 This is another indication that onshore wind is not expected to be the technology of the future. On the contrary, its inherent limitations of dependency upon variable and unpredictable wind resources, plus the fact that the prime sites have already been occupied, suggests that onshore wind is already a maturing technology approaching the plateau of its contribution.

8.18 CCC does suggest that some further gains might be obtained by "*repowering existing sites*" – replacing existing turbines with larger and/or better turbines – but otherwise further scope for investment would arise only "*if planning constraints can be addressed*." This is, of course, another acknowledgement that the 25 year life cannot be relied upon.

8.19 This last point leads to the most astonishing of CCC's conclusions. Having found that more than 50% of all windfarm applications are rejected, and that the decision time is lengthy (almost 2 years on average), it alludes to concerns about visual impact. It then suggests that "*approaches which achieve community buy-in to onshore wind projects through sharing financial benefits have helped to support high levels of investment*" but conclude that "*even with such approaches, there is a significant risk that onshore wind …. will not gain local public support given high levels of resistance from some groups*." It concludes by suggesting that new planning legislation will be required to achieve higher rates of approval. Put without circumlocution, if a community cannot be bribed[132], it will be bludgeoned into submission; so much for community involvement, localism, devolution of power and democracy.

Renewable Energy Sources other than Windfarms

8.20 The above indicates at least a strong case for doubting that onshore windfarms are "needed" to meet Government targets. A further question is whether, among the

[131] This refers to the resource theoretically available after taking into account all constraints except the availability of finance.
[132] SSE has already indicated that money could be transferred to a "community fund" if this application is approved, and other windfarms already do so.

range of renewable technologies available, wind turbines are even a preferable technology. In fact, there is evidence that onshore wind is not the most effective of the available uneconomic renewable technologies.

8.21 Photo-voltaic (PV) panels as generators of electricity[133] are also well-established technology, increasingly used in Europe and currently the subject of considerable interest in the UK. The present applicants, SSE, themselves operate extensively in the PV field (through a subsidiary, Solarcentury), and publicise successful UK examples widely[134]. They have developed an innovative retro-fit PV panel for commercial premises.

8.22 PVs need light, but not necessarily direct sunlight, to generate electricity and so can still be used in northern latitudes, of course with diminished efficiency. They are more expensive per unit of CO_2 saved than wind turbines, but also benefit from substantial subsidy[135].

8.23 The following scenario is instructive. In Northern Europe and assuming 20% capture efficiency, a PV yield of 0.8kWh/m^2 panel area/day is expected, or 292kWh/m^2/year[136]. Rugby's Core Strategy (CS), which is pending likely adoption in June/July 2011, allocates 66ha of new employment land which, at a typical plot ratio of 0.4[137], equates to around 26.4ha of buildings – and, assuming they were single storey, the same amount of roof area. If all that roof area was to be equipped with PV panels, the electricity generated would be 77,088MWh/a. By comparison, the proposed windfarm would generate 39,420MWh/a[138], only around half as much.

[133] PVs generate electricity (unlike older solar panels which only generated warm water).
[134] See http://www.solarcentury.co.uk/commercial/case-studies/
[135] Now renamed the Feed-in Tariff (FiT) or Clean Energy Cashback (CEC) scheme.
[136] The PPS22 Companion Guide (p.144) gives *domestic* yields per square metre as around 0.1kWh, but says nothing about more efficient industrial-scale systems. SSE's own PV subsidiary suggests around 0.2kWh in the UK. Wikipedia gives Northern Europe an average insolation figure of 4kWh/m^2/day which, when captured at 20% efficiency (achieved by the best commercial systems) gives a yield of 0.8kWh/m^2/day; this figure has been used here, but as the calculation is illustrative, exactness is not critical. One can halve or quarter the assumptions without altering the point.
[137] The proportion of a plot which is actually built over. See ODPM, Employment Land Reviews – Guidance Note (December 2004)
[138] The output of the windfarm is calculated using SSE's figures and an installed capacity of 9 x 2MW turbines = 18MW, at an overall efficiency of 25%; therefore the annual production would be 365 x 24 x 18 x 0.25 = 39,420MWh/a. The PV roof calculation is 26.4ha = 264,000m^2 x 292kWh/m^2/a = 77,088,000kWh/a = 77,088MWh/a. The actual figures would depend upon how much of the 26.4ha of roof area was suitable for PV panels, the % take-up, etc and would certainly be less. Against that, the calculation ignores the possibilities for retrofitting, an SSE speciality which, with numerous large warehouse roofs in Rugby in the size range 10,000 – 90,000m^2, is clearly a very significant option: at least as much and probably more roof area already exists as is proposed in the future. Similar calculations can be done for dwellings.

8.24 Similarly, the British Telecom mast site is allocated for development including up to 6200 dwellings, and Rugby Gateway for another 1300, in total 7500 or similar to the 8387 homes allegedly to be supplied by this windfarm. Again, there are also substantial retrofitting opportunities, all with little or no environmental damage.

8.25 The point is not just the specific suggestion that PVs could be equally or more productive of renewable energy than the proposed windfarm, but more importantly that a major contribution to renewable energy in Rugby could be secured without significant environmental and community damage, as PVs in effect merely change the appearance of one sloping roof material for another, especially when designed into new buildings[139].

8.26 Overall, it is far from clear, even if the proposed windfarm was the environmentally benign development claimed by SSE, that wind turbines would be the most desirable means of capturing energy when compared with other means available to Rugby (and to SSE), such as solar PV panels[140]. The CS is completely silent on renewable energy and the 2006 Local Plan is mostly silent, so at present there is no useful Rugby policy on the matter.

Viability

8.27 It is also necessary to explore in more detail what makes technology "viable". Although a key requirement of PPS22, it does not define the word. The commercial meaning is "capable of earning an adequate rate of return on the investment". No large wind turbine of the type currently proposed is capable of earning any return without a substantial subsidy. But, the word "viable" (like many other words in planning jargon) is transferred into planning from specialist uses, in this case embryology, where it means: "*having reached a stage of development at which further development can occur independently of the mother*". Wind turbines cannot exist independently of the 'mother' of subsidies, nor can they earn a 'profit' except by subsidy. On that definition alone, no on-shore windfarm depending on subsidies

[139] The use of PVs would be especially appropriate on the gently sloping roofs of major warehouses, where little visual change would occur and large areas exist.
[140] Certain renewable technologies, offshore wind or tidal for example, are not available to inland sites.

is viable and hence is not capable of being "accommodated" in the PPS22 sense. As set out above, therefore, windfarms fail one of the most basic PPS22 requirements.

8.28 Another aspect of viability is whether the wind resource is sufficient and reliably so. SSE say not only that the wind resource at Churchover is 6.3m/sec (which by inference they think sufficient, given the subsidies they will receive), but add[141] "*as the wind speed on the site is not an issue for consideration as part of this planning application, no further details are required*."

8.29 That is an astonishingly complacent statement, which is also false in its own terms. If the wind resource is insufficient, but SSSE can nonetheless profit from subsidy without delivering a full measure of electricity, the quality of the resource is a highly material planning consideration. To take one example, it is axiomatic that for other types of development that are potentially environmentally damaging, such as mineral development, thorough proving of the quantity and quality of resource is essential. Without it, no planning permission for winning and working could be secured. It would be wholly contrary to policy to permit a quarry, causing widespread environmental damage, if there was inadequate mineral to justify it, because the damage is incurred but the minerals are not delivered. Exactly the same should apply to windfarms, especially bearing in mind PPS22's requirements to prove need and viability.

[141] ES Vol.2 paragraph 4.7.1

Figures

1 Photomontages A, B, C, D, E

2 Safety warning notices

3 DECC windfarm capacity and location map

APPENDIX A

Extracts from**:**

Comments by Churchover Parish Council (CPC) on Landscape Capacity Study (Final Draft Report, January 2011) for discussion at Borough Council meeting 8 February 2011

(paragraph numbering as in draft report)

"4.4 As we shall argue below, although the 2006 study is indeed an analysis at a finer resolution, it is still sufficiently crude as to conceal different LDUs/LCAs within a single heading. The Swift Valley is not in any sense characteristic of the High Cross Plateau. This is proved by the illustration on p.23 of the report, which although looking straight across the plateau – thus confirming its open plateau character – also looks straight across Churchover but conceals the village completely. The valley is therefore demonstrably not in the landscape type. It needs to be remembered that the proposed Bransford Bridge windfarm is predominantly founded *in* the Swift Valley and not *on* the plateau.

5.9 The origin of this matrix is not stated. It includes certain arguable assumptions. There is a general difficulty with some of the less sensitive characteristics, in particular the assertions that large scale, gentle/flat, open/exposed landscapes are less sensitive to wind farms. It is an odd, and very arguable, proposition that a windfarm having the maximum visibility and maximum contrast with landscape character is somehow preferable. Why a strong vertical form is happiest in a strong horizontal landscape, is unexplained. At the least, the validity of this matrix should be explained.

6. The conclusions drawn from this tabulation are perverse in places. Ref.7 (High Cross Plateau, open plateau) is indeed correctly described as "*large scale, simple, intensively farmed*…." but the lower areas are <u>not</u> all "*smaller scale landscapes with stronger hedge and tree cover although still on simple undulating landscapes*…". Some, including the Swift Valley, are very obviously and precisely described as "*small-medium scale river valley landscape…well settled with pastoral/arable irregular fields and strong tree cover in places. There are some landmarks such as churches and many of the villages are conservation areas. The open plateau forms a simple skyline in places*."

That quote is the Report's description of High Cross Plateau, Village Farmlands character type where "*Overall wind turbine development would be out of scale and character*…." and the scale of development potentially acceptable is 'None'.

The error, which we point out in the case of the Swift Valley but which may occur in relation to other locations, is to regard the High Cross plateau as homogeneous. It is not, as proved by the photo on page 23 already referred to. It comprises a superficially homogeneous open plateau, intersected by smaller contained landscapes of the village farmlands-type valleys.

This can be illustrated by a comparison of field sizes within various identified landscape types. Although many landscape scoring attributes are subjective, one or two (such as field sizes) are objective and can be measured. The following measurements of numbers of fields per km^2 (that is, the lower the number, the larger the average field size) have been made, against the April 2006 character descriptions:

Open Plateau description	**Fields per km^2**
"*Field pattern is generally medium to large in scale*"	13.2 (x5 samples around High Cross)
Village Farmlands description	
"*The farmed landscape is characterised by a semi-regular pattern of small fields*"	14.6 (x5 samples around Monks Kirby)
Swift Valley	
n/a	14.4 (x5 samples around Churchover)

The first observation is that Churchover and Monks Kirby figures are essentially identical. Second, however, the fields are but slightly smaller than those on the High Cross Open Plateau figure. Therefore, if the Monks Kirby area justifies its designation on the grounds of small fields, then Churchover/Swift Valley justifies the same designation. A second, not unreasonable, deduction would be that if (as stated) the Village Fields landscape type is not able to accept wind turbines at all, then nor is the Open Plateau, which cast a degree of doubt upon the very principles of the categorisation!

As such CPC believes that the report's conclusions need a substantial re-examination.

[A comparative tabulation follows]

Open Plateau	Village Farmlands	Swift Valley
This is a remote, large-scale, open, rolling plateau dissected by broad valleys, characterised, for the most part, by wide views and a strong impression of "emptiness" and space	This is a small scale, mainly pastoral, hedged landscape, closely associated with nucleated village settlements around the plateau fringe.	As Village Farmlands; not remote but close to the village; small- not large-scale; no wide views; strong impression of activity and intimacy, not emptiness and space
This is reinforced by an absence of roads and settlements, with sparsely populated hamlets and isolated manor farmsteads prevailing.	The clusters of houses and farmsteads, narrow winding lanes, small-hedged fields, and in places, the undulating topography typically associated with small valleys, combine to create a varied, intimate landscape which contrasts strongly with the surrounding large scale Open Plateau.	As Village Farmlands, excepting only Cestersover Farm itself. Undulating topography with several small (side) valleys, creating varied landform and a strong contrast with the Open Plateau
In places there are extensive areas of largely inaccessible countryside, which relates closely to deserted medieval village sites.	The farmed landscape is characterised by a semi-regular pattern of small fields, enclosed by thorn hedges. Where these are well managed they create a strong sense of scale and visual unity.	No extensive areas of inaccessible countryside. Semi-regular thorn hedges, widely accessible via PROWs.
Field pattern is generally medium to large in scale but is often poorly defined and tends to be a relatively minor element in this landscape, as the eye is naturally drawn to distant skylines rather than to foreground views.	Scattered hedgerow and roadside ash also emphasise this pattern. Permanent pasture is often associated with ridge and furrow, and field ponds, often fringed by trees and scrub, are also a feature in this landscape type.	Field pattern small-medium and well defined; very prominent. Scattered ash trees throughout. Ridge and furrow prominent are NE area.
In places, however, smaller fields may occur, often associated with pockets of permanent pasture, and ridge and furrow.		These should be described as characteristic of Village Farm not Open Plateau landscapes.
Shelterbelts may also form prominent features in an otherwise open and featureless landscape.		Almost no shelterbelts, but a few copses.
	(p6 of Report April 2006) "The retention of a coherent, historic, field pattern, in the otherwise intensively farmed landscape of the High Cross Plateau, Village Farmlands …."	The historic field pattern (that is, as represented by the Enclosure Award of 1756) is with only a couple of exceptions, still present in Churchover/Swift Valley and the land is not intensively farmed in most of the valley

APPENDIX B

Extracts from

Scottish Natural Heritage, "Siting and Designing windfarms in the landscape" Version 1, December 2009

SNH is a strong supporter of renewable energy and the main current source of UK guidance on landscape impacts, and says:

- "*our support for renewables has to be balanced with …… commitments and aspirations to conserve and enhance the natural heritage, including the quality and diversity of … landscapes*."

- "*Wind turbines are generally large structures with the potential to have significant landscape and visual impacts*."

- "*The development of windfarms, including associated infrastructure such as tracks, power lines and ancillary buildings, has already had a major impact on many of Scotland's landscapes….*"

- "*large wind turbines may appear out of scale and visually dominant in lowland, settled or smaller-scale landscapes*" (such as the Swift Valley and virtually the whole Rugby area - CPC)

Even bodies which endorse renewable energy admit it can have drawbacks!

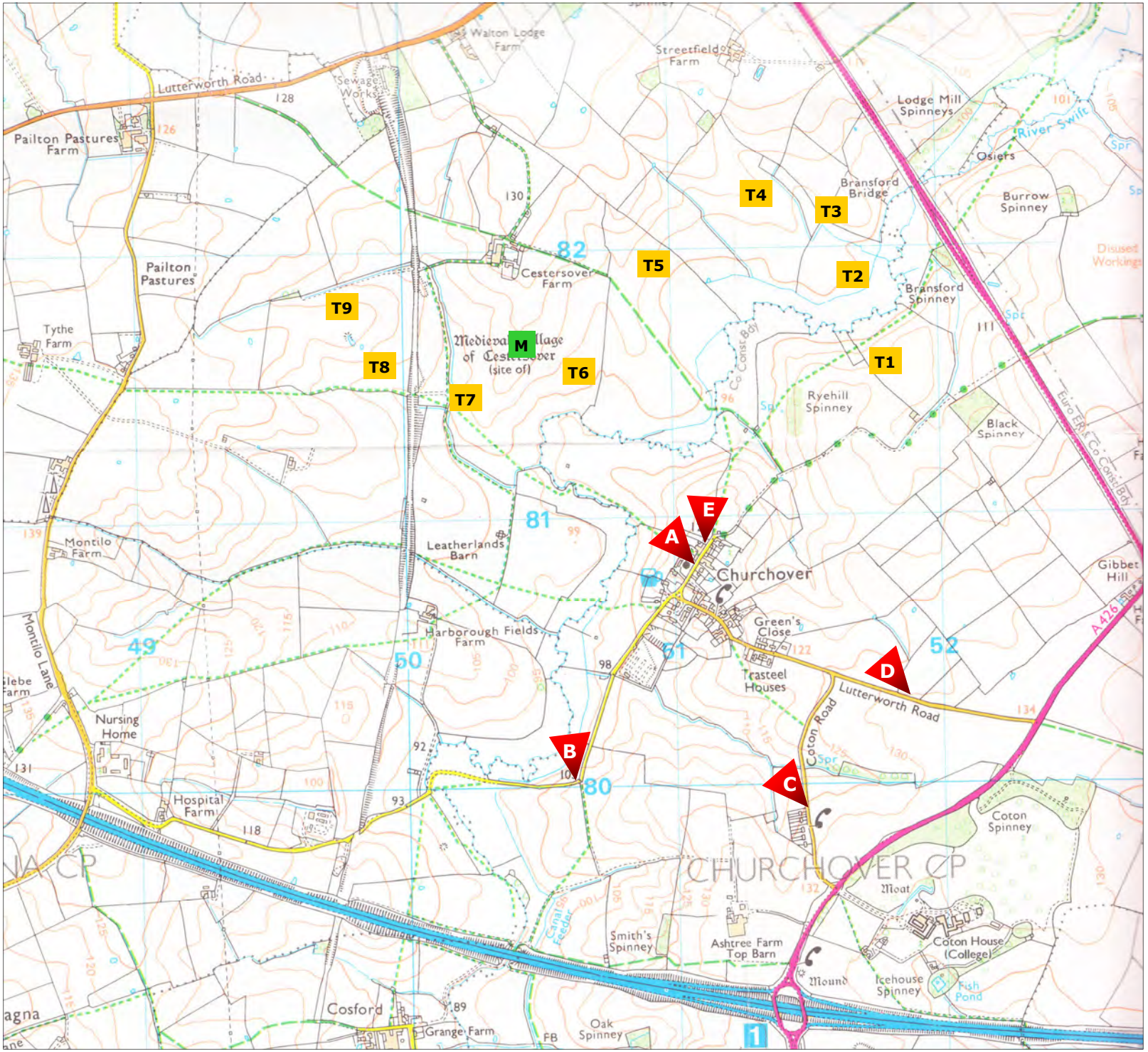

Figure 1
Photomontage Locations

A Camera viewpoints

T1 Turbine locations

M Anemometer mast

1000m

A

B

C


D

E

Figure 2

Burton Wold Wind Farm, near Kettering

Examples of public warning notices. Note (below) the proximity of the turbine to which the notices apply, as the photograph was taken from the public highway

Figure 3 WINDFARM INSTALLED CAPACITIES

Churchover location added: ★

https://restats.decc.gov.uk/cms/wind-farm-capacities-map/