STIRLING BEFORE PYLONS

acting with

FRIENDS OF THE OCHILS

as a Relevant Person Group

for the purposes of the

STIRLING SESSION

of the Public Inquiry into
Scottish & Southern Energy's proposals for the
Beauly to Denny 400 KV Steel Tower Double Circuit
Overhead Electricity Transmission Line

PRECOGNITION

Nicki Baker

The Ochil Hills:
Landscape, visual impact, recreation & amenity

INTRODUCTION

1. My name is Nicki Baker.

2. I have a first class degree in mathematics and a PhD in transport studies. I worked for 31 years in public policy-related research, statistics and analysis, in universities, the Scottish National Health Service, and Scottish local government. I am now a counsellor / psychotherapist. I am a member of Stirling Before Pylons, and the Chair of the charity Friends of the Ochils, and was a member of the Dumyat Action Group. More details on my credentials are to be found in my precognition on "Context and Process".

3. The house I live in is situated at the western edge of the Ochil Hills, above the University of Stirling and adjacent to its Hermitage Wood, some 400-500 metres from both the existing and the proposed power lines but facing away from them.

SCOPE OF EVIDENCE

4. I write this precognition from the perspective of someone who has lived in the area for the last 13 years, who goes walking in the western Ochils very frequently, and who cares deeply about the area.

5. Geoff Sinclair's precognition is being prepared independently, from the perspective of someone from outwith the area who has a professional expertise in the evaluation of landscape and visual impacts.

6. This precognition deals with issues relating to landscape, visual impact, recreation and amenity, and focuses principally on the Ochil Hills. More specifically, it covers the following:

- The importance of the Ochil Hills
- The south face of the Ochils
- Significant parts of the western Ochils:
  - the roads into the interior
  - Dumyat and the Cocksburn Reservoir
  - Yellowcraig Wood
  - Sheriffmuir
  - the Logie area
  - the University of Stirling
- The existing power line
- The potential impact of the power line upgrade
  - pylons and wires
  - the issue of scale
  - pylons and wires in woodland
  - construction tracks, sites and associated works
  - traffic on the Sheriffmuir road
  - construction sites and other facilities
  - habitats
  - noise
  - mitigation measures
- The failure of the ES to recognise the issues
- Benefits accruing from removal of the 132kV line
- Shortcomings of APL 5/16
- The need to see for oneself
- Conclusions

THE IMPORTANCE OF THE OCHIL HILLS

7. We in the Stirling area are arguably at something of a disadvantage, coming last in the public inquiry process. Those participating throughout will have been made aware of the beauty of some of the northern landscapes, where the highest hills are well over 3,000 feet, and some of the lands are truly “wild”. In this area, our cherished Ochil Hills are not so

high – the highest, Ben Cleuch, reaches to 2,380 feet – and, being so accessible to so many people, cannot be deemed wild land in the strictest sense. Nevertheless, they have the quality of wildness, and are experienced as "wild" by many of the people that use them.

8. But it is not from the north that one should approach the Ochils. They face south, in more ways than one. Their south-facing scarp slopes are their most spectacular feature, and the people to whom they mean so much are those of the central belt of Scotland, to the south, east and west of the hills. Friends of the Ochils have estimated (StBP/4/23) that some 45% of the entire population of Scotland lives within an hour's drive of the Ochils.

9. They are the first "real" hills, the first High Lands, that one encounters on the way north. The very name of the hills comes from the P-Celtic word "uchel", meaning high. Indeed, one may see the Ochils as the gateway to the highlands of Scotland, the place where the extensive, man-modified flat lands of the central belt start to give way to the very different geology and scenery to the north. Prof Thomas has more to say on this.

10. The Ochils are used by people from across the central belt of Scotland and beyond its borders, not just those who live closest (StBP/4/10 and StBP/4/11), and the "virtual population" of the hills – to use Clackmannanshire Council's term – extends well beyond local settlements. They are of regional or even sub-national importance; indeed, a significant proportion of their users come from outwith Scotland.

11. Hills, and the sort of rugged, "wild", unsettled, unspoilt environment they offer, are of immense importance to a substantial proportion of the population. John Mayhew, Head of Policy and Planning for the National Trust for Scotland, expressed this admirably in his precognition for the Strategy session of this Inquiry. We fully concur with his statements, which apply just as much to the Ochil Hills as the Highlands to the north, and I believe they bear repeating here:

"Landscape is about the relationship between people and place, It is an expression used to define people's experience and perception of the combination of topography, water, vegetation cover and the cultural environment. The full understanding and appreciation of landscape therefore comprises more than straightforward visual perception, although the appreciation of fine scenery often forms its foundation. It often extends beyond physical attributes and processes to explore values such as historical, aesthetic and spiritual associations.

"Another way of seeing to understand landscape is to explore the wide range of values which people attribute to specific landscapes. These values are the various qualities in a landscape to which people respond and which give it meaning and significance in their lives. Values attributed to landscapes may be wholly personal, they may be shared with a few other people or they may reflect a wider cultural and social inheritance.

"Scotland has a long and distinguished history of landscape appreciation and protection, particularly relating to highland landscapes. Since the 18th century the highland landscape has been lauded as a paradigm of a certain kind of beauty – sublime, wild, romantic – and Scotland's tourist industry still trades on these notions and values…

"… Scotland's heritage of natural and cultural landscapes is renowned throughout the world. While well-protected and managed, our landscapes enhance both people's and visitors' quality of life and well-being and provide inspiration, refreshment and enjoyment. Our landscapes contain the record of the achievements of those people who went befor us, and form a key part of our national, regional and local identity. They provide the settings which are critical to people's decisions to stay in or relocate to Scotland, and which can encourage inward investment…. They are therefore of fundamental importance to Scotland's environment, society and economy."

THE SOUTH FACE OF THE OCHILS

12. The south face of the Ochils is truly spectacular. As seen from the A91, as one travels east from Stirling, it offers a delightful range of crags and steep green slopes, liberally covered with gorse in places. Documents StBP / 4 / 4 and StBP / 4 / 5 give some impression of some aspects of this southern scarp but, of course, to be fully appreciated the area needs to be visited.

13. The impact of the southern face of the Ochils is well recognised in SNH's Central Region Landscape Character Assessment, CD – K13, p30:

"The prominent mass of the Ochil Hills forms an abrupt northern boundary to the Forth Valley… Forming the highest ground within the Lowlands of Central Region, the hills reach a peak in Ben Cleuch (721m). The tightly-knit hill plateau is capped by smooth, rounded tops, strongly fissured by the deep cuts of minor watercourses. The dominant feature of the hills is the striking contrast between the abrupt, extremely steep southern scarp, and the broad, level plain of the lower Devon River below. The streamcourses of the upper plateau slopes converge and carve into the south-facing perimeter of the hills, plunging through steep-sided glens to reach the valley floor. The precipitous slopes are broken through by numerous rocky extrusions, further contrasting with the smooth adjoining fields …

"… The Ochils are a predominantly uninhabited landscape, forming a stunning backdrop to the contrasting farmed, settled floodplains of the Devon and Forth rivers…

"… The powerful sense of contrast in topography between the serried steep profile of the hills and the flat valley is further emphasised by the change from the rough vegetation and craggy outcrops of the scarp slope to the man-made grid of the carselands. Panoramic views of the glinting coils of the Forth, as it journeys to the sea, are gained from the southern edge of the Ochils…"

14. The same section acknowledges the existence of the 132kV power line, but describes it as "generally not over-prominent".

15. Later in the same document (pp 94-95), SNH's document further describes the Ochil Hills as:

"…[offering] a landscape experience which is unique in Scotland"

and

"Location and topography combine to make the Ochils, particularly the south-facing slopes, one of the most visually sensitive areas in Scotland."

16. SNH's Landscape Character Assessment identifies the key strategic aim for the area as being to:

"conserve and enhance open hill character",

and giving guidelines to:

"protect most visually sensitive ground on steep scarp slopes and junction between escarpment and river plain from further encroachment by development;

"promote further management agreements to safeguard remaining unprotected areas of semi-natural woodlands on scarp face and within glens;

"encourage new semi-natural broad-leaved woodland schemes where appropriate within glens and on scarp face;

"conserve visual identity of detailed landform features on south-facing slopes;

"encourage sensitive canopy restructuring in Forest Enterprise / privately owned woodlands at Bridge of Allan / Stirling University areas."

17. In the Strategy session, Ms Beauchamp suggested that SNH's Landscape Character Assessments were outdated, but on cross-examination conceded that this really applies principally to areas where landscapes have been dramatically changed by recent windfarm developments. It is

readily obvious that the Assessments quoted above are just as apt now, in 2007, as they were in 1999 when they were published.

18. The south face of the Ochils forms a very crucial part of the backdrop and setting of the City of Stirling and its most iconic buildings, Stirling Castle and the National Wallace Monument. Image after image, on postcards, calendars and all sorts of other publications shows one or both, set against the Ochils. Without this stunning backdrop, their impact would be far less.

19. Prof Thomas, Dr Watson and Dr King all say more about this. In paragraphs below, I comment on the impact on these stunning landscapes of the proposed power line upgrade.

SIGNIFICANT PARTS OF THE WESTERN OCHILS

20. The interior of the Ochils is an unquestionably highland area. It is hilly, rocky, craggy in parts. It is largely unsettled (in these days), ancient, "wild", relatively untouched. It needs to be experienced to be appreciated – and perhaps at various times of the year, for at the time of this session of the Inquiry we will be into the dark, dank months when it is rare for anywhere to be seen at its best.

- The roads into the interior

21. There is an extraordinary transition to be experienced, as one travels from the settled, clearly man-modified, flat carse lands up into the interior of the Ochils.

22. Two tiny, ancient roads give access from the carse up onto Sheriffmuir, in the interior of the western Ochils. We recommend anyone who wishes to get a feel for this area to drive up both roads, to experience for themselves how they differ so much from the modern roads of the lowlands, and what

a strong sense they give of the transition from carse to hill country. Some photographs of the roads are included in StBP / 4 / 4.

23. The road up from Bridge of Allan, behind the University of Stirling, is known locally as the Roman Cut. It is a very steep, single track road, with few passing places, and passes for 200 m or so through a unique, very narrow ravine cut through rock, some 6 – 10 m high, and clad with ivy, mosses, ferns and small trees, before emerging out among the fields of a hill farm. It can have a quite magical sense, and really emphasises the transition from the outskirts of Bridge of Allan into the Ochils interior, but it can also be quite offputting for less-experienced drivers. It can be used nevertheless by commercial vehicles up to a moderate size, as well as cars.

24. The road up from Logie Kirk is different, but also unique. It is even steeper in places than the Roman Cut – there is a very tight, very steep U-turn at one point – and even narrower, with a stretch of 500 m with no possibility for even two cars to pass, which causes considerable difficulty at times. The road is wholly unsuitable for anything larger than a light van, and in winter, being badly drained and untreated, it can remain icy and unsafe for days at a time. This road is shunned even by many locals, and is best avoided at any time when the probability of meeting another vehicle is high. It offers nevertheless a unique and delightful if challenging experience, as one drives up between the old walls of the old estate of Airthrey Castle, now the University of Stirling, with the University's Hermitage Wood on one side and Yellowcraig Wood on the other, into the interior of the Ochils.

25. The Roman Cut road turns right to go up to Sheriffmuir, and after about 600 m meets up with the Logie Kirk road, then continues on for about 15 km across Sheriffmuir. The road continues to be single track throughout, and lacks any formal passing places, though offering reasonably frequent opportunities for passing. The drive is popular with day visitors, who can enjoy the lovely views of both the interior of the Ochils and the more

distant views of Munros to the north. The drainage for the first few miles is however very poor, and the road becomes unusable for days at a time due to icing up.

26. This road has an important and unique history: it used to be the main artery of the ancient drove roads, used by people to bring their cattle down from all parts of the highlands to the Falkirk Tryst, to sell them (see StBP / 4 / 8). In those days what is now the carse of Stirling was marshland and unusable; the main route to the north was this one, across Sheriffmuir. Hundreds of thousands of sheep and cattle each year were collected from farms across northern Scotland, and driven on foot down through the network of drove roads for sale. That network gradually coalesced into a small number of main arteries, of which the road across Sheriffmuir was one of the largest and most important. The Falkirk Tryst was the place where most of the beasts were finally gathered, amid scenes of great bustle and activity. The occasion was of great importance in the lives of local people.

27. To those who know where and how to look, the Sheriffmuir area contains many relicts of that era. Several inns of the time are now ruined, or converted to homes, though the Sheriffmuir Inn continues in its ancient role – and attracts many visitors for its award-winning cuisine and ambience. Menstrie Glen, now containing just one obvious ruined farm (at Jerah), then had no fewer than 14 working crofts as well as a substantial house and parklands at Loss. This area, that is now so quiet and peaceful, was once home to many more people and much activity.

28. The area near the Inn was where the very important Battle of Sherirrmuir took place in 1715. Virginia Wills has much more to say on that.

29. Friends of the Ochils are participating in the Ochils Landscape Partnership, an initiative set up by Clackmannanshire Council to seek Lottery funding for landscape-related developments in the Ochils and Hillfoots area. One of our ideas for this partnership is to develop some

leaflets, highlighting the history of the Sheriffmuir area, to help visitors appreciate its fascinating past, and to locate just where such important events as the Battle of Sheriffmuir took place.

- **Dumyat and the Cocksburn Reservoir**

30. Just beyond the point where the Roman Cut road meets the Logie Kirk road, one comes to the most heavily visited part of the whole of the Ochil Hills: the Dumyat / Cocksburn Reservoir area.

31. Dumyat is a small hill, just 418 m high, but has the profile of much higher hills, and without other visual referents to give it scale, it can easily be taken for a much higher one. It is situated at the western end of the Ochils, and separated from the adjoining, higher hills by Menstrie Glen. It is named for the Iron Age hill fort on its southern outlier, Castle Law: this was known as the Dún of the Maeotae, the area headquarters of the Pictish tribe well-respected by Julius Caesar (see StBP / 4 / 19 for more details).

32. There is a plaque commemorating the Argyll and Sutherland Highlanders army regiment at the summit of Dumyat. This regiment was quartered within Stirling Castle from the early 1700's to 1964.

33. The main point of access for those who walk up Dumyat is the Sheriffmuir road, and cars park informally here – the immediate area can accommodate up to 40 cars. On the opposite side of the Sheriffmuir road, and some 500 m to the north, lies the Cocksburn Reservoir, a small and attractive reservoir set up in the 1920s to serve the Bridge of Allan area. It is now owned by Scottish Water, who had to drain it for 6 months earlier in 2007 in order to carry out essential maintenance, even though the water is not at present used as part of the supply network. The works have temporarily reduced the water level, the vegetation beside the reservoir, the fish stocks, and the bird life that previously abounded, but these are expected to recover over the next year or two.

34. Dumyat is an exceptionally well-known and popular hill (see StBP / 4 / 19; StBP / 4 / 16; StBP / 4 / 15). Descriptions of it, and of the main path up it, abound. An earlier version of Stirling Council's City Bid brochure said:

> "The fringes of Stirling have a way of sticking in the mind … that great explorer, writer, descendant of kings and politician R B Cunninghame Graham, affectionately known as Don Roberto because of his travels in Latin America, once stood on top of a hill in Paraguay and admired the view. He was joined by a stranger on horseback, and when they conversed in Spanish Don Roberto realised the other man was a Scot. Cunninghame Graham admired the view and the other man said:
>
> 'Yes, but it doesn't beat the view from Dumyat!'"

35. The route to Dumyat from the Sheriffmuir road offers a relatively easy but unusually enjoyable hill walk of around one and a quarter hours from the main parking area on the Sheriffmuir road, with delightful views throughout the entire walk as well as from the summit, over the carse, across to the Gargunnock Hills, northwards to a magnificent vista of 14 Munros ranging from Schiehallion and Ben Lawers in the north-east to Ben Lomond and the Arrochar Alps in the north-west. In clear light one can see as far as the hills of East Lothian and Dumfries. The broad silvery Links of Forth (the sinuous curves of the River Forth) dominate the landscapes of the carse, moderating the more industrial views of Grangemouth, Falkirk and the Longannet Power Station some 15 km away.

36. People come to Dumyat for all sorts of reasons, but the main one is to walk. Walking is of course a very popular activity – it is people's most preferred form of exercise, and a major reason why people come to Scotland as tourists. Many, whether tourists, day visitors or locals, recognise that walking brings important health benefits: government advice at present is, variously, to get at least 30 minutes' exercise per day, or (contradictorily) to take 10,000 steps a day – the equivalent of brisk walking for one and a half hours – or a walk up Dumyat.

37. As VisitScotland says (StBP / 6 / 24, p2), “Scotland is a walkers’ paradise”. Their research shows that for nearly a quarter of all visitors, walking is the main activity or a part of the activities of a trip; that visitors are as likely to want a moderate walk as a hard one; and that three quarters of visitors who walk also want to visit castles etc in the course of their visit. The Stirling area obviously meets such needs admirably, and a walk up Dumyat can be a valued part of the visit. James Fraser has more to say on this.

38. But Dumyat obviously means a great deal more to many people. It can hold a truly spiritual significance. Some people care so much about it that they ask for their ashes to be scattered there (see for example StBP / 4 / 7 and StBP / 4 / 10). One sees ashes scattered near the top, floral tributes are quite often left at the summit cairn, and for some years a small memorial a little off the beaten track has remained undisturbed, though visited, for some years..

39. It plays host to much happier occasions too: a full wedding ceremony was conducted by a celebrant from the Scottish Humanist Society at the summit in August of this year (see StBP /4 /4).

40. Not all users of Dumyat are walkers. Other uses include:

- Jogging and running
- Mountain biking
- Birdwatching
- Flying kites
- Orienteering
- Picnicking
- Rolling pasque eggs on Easter Sunday
- Lighting beacons at the summit for special occasions

41. Cocksburn Reservoir is also a popular place, at all times of day. Its main visitors are walkers – the circumnavigation offers a very pleasant walk of

around half an hour – and it is also a popular place for fishing. Its main catchment is probably the Bridge of Allan area.

42. Dumyat and the Cocksburn Reservoir inter-relate closely in the landscape. Dumyat and it surrounding hills create the southern view for walkers at the Reservoir, while the Reservoir, and the Munros behind it (Ben Vorlich and Stuc a'Chroin), are key parts of the view to the north as one descends Dumyat via the main path. Documents StBP / 4 / 4 and StBP / 4 / 5 give some pictures of the area, but to properly appreciate its beauty a visit is needed, preferably including a walk up at least the first few hundred metres of the path up Dumyat.

43. That this area is very well-visited is obvious to those who come here frequently, but no data on its use existed at the time when the proposals for the power line upgrade were first set out. This lack of hard evidence was seen as a significant handicap in the debate over the proposals, so a group of local people undertook a set of surveys to establish how many people visit the area, how often they visit, and where they come from. The methodology and analysis of the data for these surveys are given in StBP / 4 / 11, and a report on the findings is at StBP / 4 / 10. The latter report was widely circulated in the summer of 2004, including to SSE and to the Scottish Executive Energy Consents Unit.

44. The surveys established that, in 2004, some 36,000 visits were being made annually to Dumyat and the Cocksburn Reservoir, with access via the Sheriffmuir road. We now estimate, conservatively, that numbers will be around 41,000 annually. This is a substantial number – the equivalent of about one visit per person for everyone living in the City fo Stirling, for example. It is also twice the number of people estimated by the John Muir Trust (StBP / 4 / 20) who annually visit Schiehallion, a popular Munro, and one of the most accessible to the majority of the Scottish population.

45. The survey work showed that people come to visit Dumyat from far and wide. While two thirds lived in the old Central Region area (now covered

by Stirling, Clackmannanshire and Falkirk Councils, and approximately equivalent to the FK postal area), a substantial minority came from further afield. Around 1 in 8 visits was made by people living in the central lowlands outwith Central Region, confirming the importance of the Ochils, and of the Dumyat area in particular, to the people of central Scotland as a whole. Additionally, nearly one in 5 visitors lived outwith Scotland – 6% coming from other parts of the UK, but twice as many from outwith the UK – confirming that Dumyat plays a role in attracting and satisfying tourists to the Stirling area.

46. It is an obvious walk for visitors to Stirling Castle and the National Wallace Monument to take to complement their more cultural pastimes, and is recommended by the local Tourist Board among many others. There are interesting similarities between the visitor profile shown in StBP/4/10, and the wider picture of visitors to the Stirling area outlined by James Fraser in his evidence.

47. The survey data also provided information about how often people reported visiting Dumyat. Nearly half – 43% - of visits were made by people for whom this was their first visit ever, or the first visit for more than a year, confirming the wide attraction of the area and suggesting that several hundreds of thousands of people, from right across central Scotland as well as further afield, have climbed Dumyat at some time in their lives.

48. At the same time, a minority of visits are made by people who come very frequently, with 5% being made by people who say they come at least once a week.

49. We are not in a position to offer firm estimates of the numbers of people who use the Cocksburn Reservoir but with access from the north (Bridge of Allan) side, but we suggest that this is unlikely to be fewer than 10,000 visits a year, but with most being relatively regular visitors. This estimate

of 10,000 is in addition to the 41,000 annual visits to Dumyat and the Reservoir from the Sheriffmuir road.

- Yellowcraig Wood

50. Yellowcraig Wood (see StBP / 4 / 1 for a report on the Wood) is a delightful wood clothing the scarp slope of the Ochils above Logie. It includes the prominent crag Yellowcraig. There are paths up through the wood, leading up to Sheriffmuir, Dumyat and the Cocksburn Reservoir. The wood is also much used by visitors to Witches Craig Caravan Park, at its foot. One path leads out onto the flat top of Yellow Craig, from where there are magnificent views including Airthrey Castle and the surrounding gardens, within the University of Stirling campus, and on to much wider views of the carse and the hills beyond.

51. The Wood comprises a very important element in the views of the Ochils scarp, seen for many miles around. The existence of rich tree cover on craggy outcrops and hills is a fundamental part of many views in this area, whether that be of Abbey Craig, with the National Wallace Monument, or of the wooded slopes of the Ochils themselves, providing the backdrop to the views from the top of the Monument, or of views of the Monument from, for example, Stirling Castle, set against the partly-wooded, partly craggy slopes of the Ochils.

52. Yellowcraig Wood includes areas of Ancient Woodland, as well as other extensive areas of broadleaved and coniferous woodlands.

53. It is home to red squirrels and bats, among many other species (see StBP / 4 / 1).

54. The property called Broomhill is situated within Yellowcraig Wood, very close – 30 m at closest - to the existing 132 KV line. Three other properties are located below, and share the same private water supply.

55. At the foot of the wood lie the old and new Logie Kirks and their graveyard and cemeteries. Yellowcraig Wood forms the immediate backdrop to the Old Kirk and Graveyard, and Carlie Crag within the wood is a prominent feature in their setting – see StBP / 4 / 4.

- Sheriffmuir

56. The other part of Sheriffmuir that is frequently visited is the area where the Battle of Sheriffmuir was fought in 1715. Virginia Wills has much to say on this topic.

57. This area is very attractive, and the Sheriffmuir Inn, which has been winning a number of awards under its current owners, is becoming ever more popular. "Scotland The Best", document StBP / 4 / 15, on page 120 rates the Inn as one of the best hotels and restaurants in Central Scotland.

58. Near to the Inn and the Battlefield is the place known as Paradise Pool, recognised by the same useful publication, page 214, as one of the nineteen best "Summer Picnics and Great Swimming Holes" in Scotland.

- The Logie area

59. At the foot of the Ochils, as one leaves the A91 to the east of the University and just before the climb up to the interior and Sheriffmuir, sits the old, quaint and very attractive area known as Logie. Here there is a B-listed Church of Scotland Kirk, built in the 1800s, and exceptionally popular with worshippers.

60. Beside and behind the Kirk are two large cemeteries, run by Stirling Council, and in constant use by those who come to tend graves or attend funerals.

61. A little way up the Logie Kirk road, one comes to the ruins of the Old Kirk with its ancient graveyard (see StBP / 4 / 4 and StBP / 4 /5). This, again,

is well-recognised for its interest to visitors: “Scotland The Best” (*ibid*) listed it (page 239) as one of the 11 “Most Interesting Graveyards” in Scotland, while visitor publications such as Explore Scotland’s “Stirling and Area: Guide with Maps, 2007/08” (StBP / 4 21), available free at all sorts of visitor locations throughout the Stirling area during 2007, also suggested it as one of the most interesting places to visit.

62. Both Kirks, and all the graveyards, have as their backdrop the lovely scarp slope of the Ochils, with the crags and trees of Yellowcraig Wood creating an exceptionally peaceful and attractive setting. Again, we offer some photographs in StBP / 4 / 4 and StBP / 4 / 5, but recommend that the area be visited in person to gain a full appreciation of its special qualities.

63. We understand that the Minister of Logie Kirk will be submitting an independent precognition about this area. We recommend that the area be visited, to appreciate its special qualities.

- The University of Stirling

64. The University of Stirling has made its own written submissions to the Inquiry regarding its very fine campus, and the University’s concerns about the proposed power line upgrades. The beauty of the campus which, again, has a fabulous backdrop comprising the scarp slope of the Ochils, Yellowcraig Wood and Dumyat, in addition to being designated a HGDL in recognition of the fine grounds of Airthrey Castle which it occupies, is promoted by the University as one of its unique selling points and of particular importance to its success.

65. The campus is open to all, and it, its Loch, and its Hermitage Wood which clothes the steep slopes immediately behind it, are much used by the people of Stirling, for recreational purposes. The importance of the paths through the wood is recognised by their being included in Stirling Council’s draft list of Core Paths.

66. The University is one of the largest and most prestigious employers in the Stirling area, and the 10,000 students also contribute greatly to the local economy.

THE EXISTING POWER LINE

67. There is, of course, an existing 132 kV power line which crosses the western Ochils, and comes across Sheriffmuir, and down the southern scarp through Yellowcraig Wood, near the University of Stirling and Logie Kirk. It has been there since the early 1950s.

68. It is without question very out of place in the landscapes of the Ochils. One or two pylons are particularly prominent, and in certain of the less-frequented parts of Sheriffmuir the sight of a row of them, stacking up, detracts greatly from that part of the landscape.

69. Even so, the fact that the wires on the power line are relatively thin means that it is the pylons that tend to stand out as individual blots on the landscape, rather than the whole power line being a full-scale, continuous linear eyesore.

70. And to a degree, the height of the existing pylons is such as to be partially acceptable within some parts of the landscape, in those places where they give the impression of being not so much higher than the surrounding trees, and where they are fully backclothed against hill or wood.

71. Indeed, this part of the western Ochils was designated as an Area of Great Landscape Value despite the existence of the 132 kV power line – very much an accolade to the wonderful scenery and unique character of the area. In line with the modern aspirations to preserve and enhance those places that are recognised as special, it would be of great benefit if the 132 kV line were removed.

72. It would be inappropriate for very many reasons to suggest that, just because the area already contains the 132 kV line, it would make little or no difference to replace it with a 400 kV line. For a start, one should recognise how very different were the circumstances of the early 1950s, when the decision was taken to allow its construction, compared to now. These include:

- Great Britain was still emerging from two devastating world wars and the intervening massive Depression. Rationing was still in place. Many homes still had no access to electricity, including those along the Sheriffmuir road. Progress was seen in terms of construction and reconstruction, creating the opportunities for better, more comfortable and convenient housing, and more jobs.

- Circumstances were very different. Stirling Castle had been an army barracks for 250 years, and would continue as the home of the Argyll and Sutherland Regiment until 1964. It was far from being the exceptionally fine, greatly restored, historical place visited by nearly half a million visitors a year that it is now. Even the Wallace Monument was of much less significance when the 132 kV line was built: though obviously just as prominent in the landscape, its cultural significance was far less at that time. It opened for just a couple of days a week, and had just a fraction of the current visitor numbers.

- Very few people had their own car – just 1 in 7 households owned one. Even when households did own a car, they often used it only for special occasions. People walked a great deal, in the course of their everyday lives; they did not need to make the effort to go for a walk for the sake of their health. And when they did go for a walk, it would usually have to be somewhere close to home or accessible by bus or train. By 1998, compared with 1950, household car ownership had increased by a factor of 5; the number of cars by a

factor of 11, and car traffic by a factor of 15. The numbers will be higher still now.

73. The smaller scale of the 132kV line, and the smaller construction vehicles of the 1950s, meant that the construction traffic for that power line appears to have been able to use the Sheriffmuir road. That there are still short spurs leading off from the road to individual pylons supports this.

THE POTENTIAL IMPACT OF THE POWER LINE UPGRADE

- Pylons and wires

74. The characteristics of the proposed 400 kV line are vastly different from those of the existing 132 kV line. The new pylons would be about twice as high, and seven times the volume of the existing ones. Their wires would be very much thicker, and being double-strung, the power line would give far more of an appearance of being a strung-out, continuous linear feature, punctuated by the massive pylons, rather than a set of far smaller, apparently almost free-standing pylons. An impression of the difference between them is given in the photograph in StBP / 4 / 5, last page.

75. SSE makes much of the smaller number of pylons that they say they would need overall but, in one of the most sensitive part of the Ochils interior – the Dumyat / Cocksburn reservoir / Logie area - they are actually proposing to use more than at present, and their siting would be more intrusive. Changes would include:

- Routeing the new line directly between Dumyat and the Cocksburn Reservoir, at right angles to the main paths, thus cutting right through the views from both paths.

- Putting an angle tower at a particularly prominent position, between the Sheriffmuir road and the Reservoir, where there isn't one at

present. The construction track for this pylon would go right over the path from the road.

- Replacing an existing angle tower right beside the main Dumyat parking area with a line tower. This is currently the most prominent single eyesore in this very popular and highly-visited area. It is clearly visible from both the National Wallace Monument and Stirling Castle and the new one would of course be very much more visible due to its much larger dimensions.

- Putting a new line tower directly opposite the end of the main track up Dumyat.

- The one existing pylon that would not be replaced is an interesting example of exemplary siting and function. It is located downhill from the angle tower at the parking area, in a dip in the ground. It is well backclothed against the hill, and often escapes notice (see for example the front page of StBP/4/5). It also serves the very useful function of drawing the wires of the existing line down in such a way as to avoid their being skylined in many parts of this particularly sensitive location.

76. Very obviously, the 400 kV pylons would be skylined far more often than are the 132 kV pylons, and their impact would be magnified still further by this.

77. The impact of the much larger pylons, with their thicker, double-strung wires, would be very great indeed from the Logie area, up through Yellowcraig Wood, beside the Logie Kirk road, and right along the Sheriffmuir road. In the wood most of all, clothing as it does the scarp slope, the impact would be heightened by the large amounts of tree felling required for construction access and for long term maintenance.

78. This view, most of all, would be seen from many miles around, and as the setting to the National Wallace Monument and to Stirling Castle, these would be significantly impacted.

79. The much higher pylons and thicker wires would have a major impact on views of the National Wallace Monument as enjoyed by people travelling westwards along the A91 Hillfoots road, and the A907 from Alloa. Views of the Monument from these roads currently contain the existing pylons, but the much greater height of the proposed ones would greatly increase the adverse effects.

80. The proposed line would go very close to the cemeteries at Logie Kirk. It would continue very close to the Kirk itself and almost over the top of several houses. It would go right through the catchment area for the water supply for those houses and would almost inevitably lead to major disruptions in that water supply.

81. Its route would take it right up through the heart of Yellowcraig Wood, which clothes the scarp slope at this point. That Wood would presumably be closed for access by all the walkers who currently use it, including those who stay at Witches Craig Caravan Park, at least for the duration of construction works.

82. At the Dumyat / Cocksburn Reservoir parking area, the line would be close to the road. It would be parallel to the road for a long stretch, and at right angles to the key paths, so very highly visible. It would have a particularly major impact, from the start / finish points at the road, for long stretches of the descent from Dumyat, and for large parts of the walks round the Reservoir.

83. During the construction phase, there would be major disruption of access to these walks as the construction traffic would actually use precisely that part of the Sheriffmuir road that provides access to them, as well as going right over the path to the Reservoir.

84. Being closer to the Cocksburn Reservoir than the existing 132kV line, the impact of the new line would be further magnified for those who use that area, even when accessing it from the north. For users of Dumyat, where the magnificent panoramic views on descent reach right across the road, to the Reservoir, and beyond to the Munros some miles away, the impact would be very great indeed.

85. It would be further magnified by the destruction of two magnificent mature beech trees – see StBP / 4 / 5 – right beside the parking area, but almost underneath the proposed new line. There would be little that could be done to mitigate the harsh impacts of the proposed line, but the retention of these two fine trees would at least reduce those impacts. We ask for the line to be re-routed in this area to allow them to remain, should consent be given to the applicants' proposals.

86. There is also a fine mature Scots pine in the field below the parking area, that contributes greatly to the views of Dumyat and Castle Law (see front page of StBP / 4 / 5). This tree is also likely to be threatened with felling if the power line is constructed, and its loss also would certainly have a permanent adverse impact on the landscape here. Again, we ask for the line to be re-routed in this area to allow this tree to remain, should consent be given to the applicants' proposals.

87. In addition, the new line would cross the road at right angles right at the parking area. There would be a new angle tower on the knoll above the Sheriffmuir road, right underneath the path from there to the Reservoir; this area is currently unaffected by the 132kV line.

88. We do not agree with the applicants' recent assessment of the impact on the Bridge of Allan – Dumyat path in document APL/STG -20, p7, which rates this as "moderate". Their definition of "major impact" is "obvious view of the overhead line with potential to cause significant impact" and these conditions are, in our view, self-evidently met, even in the long term.

- The issue of scale

89. A fundamental issue here is the question of scale. This is a small-scale, intimate landscape, yet it gives the impression of being of a much larger scale. The reality is that the height gain from the Sheriffmuir road to the top of Dumyat is only about 250 metres – yet the sense of the place bears comparison with some Munros. To put pylons of 46 m or 50 m in height into such a landscape would destroy the sense of scale, and/or would serve to emphasise even more the excessive size of the new ironware.

90. A further idea of how this might impact can be gained from looking at APL 5/16, Figure 5/23, which shows a profile of the scarp slope (clothed by Yellowcraig Wood). The total height gain in this figure amounts to some 150 metres, over a 600 metre horizontal distance. To insert three giant pylons, as proposed, into the steepest area would add constructions whose combined height almost equals the total height gain of the scarp.

- Cumulative impact

91. There are issues of cumulative impact particularly in the Dumyat / Cocksburn Reservoir area. Here, the Braes of Doune wind farm already features quite strongly in views to the north. In addition, some of the turbines of Earlsburn wind farm are to be seen lining the top of the flat ridge of the Gargunnock Hills to the south.

92. The new power line would impose additional manmade features to these views, very much closer and of particularly large size.

- Pylons and wires in woodland

93. An example of where existing pylons are skylined is above Yellowcraig Wood (see photo, StBP / 4 / 4). Although visually intrusive, the height of the pylon is, arguably, balanced to a degree by the fact that it is situated in a small col, with trees clothing the slopes of the rising ground on either

side, so the tree tops in the vicinity are of a broadly similar height. This helps to reduce the impact. Replacing this pylon with one twice its height would create a much more visible intrusion.

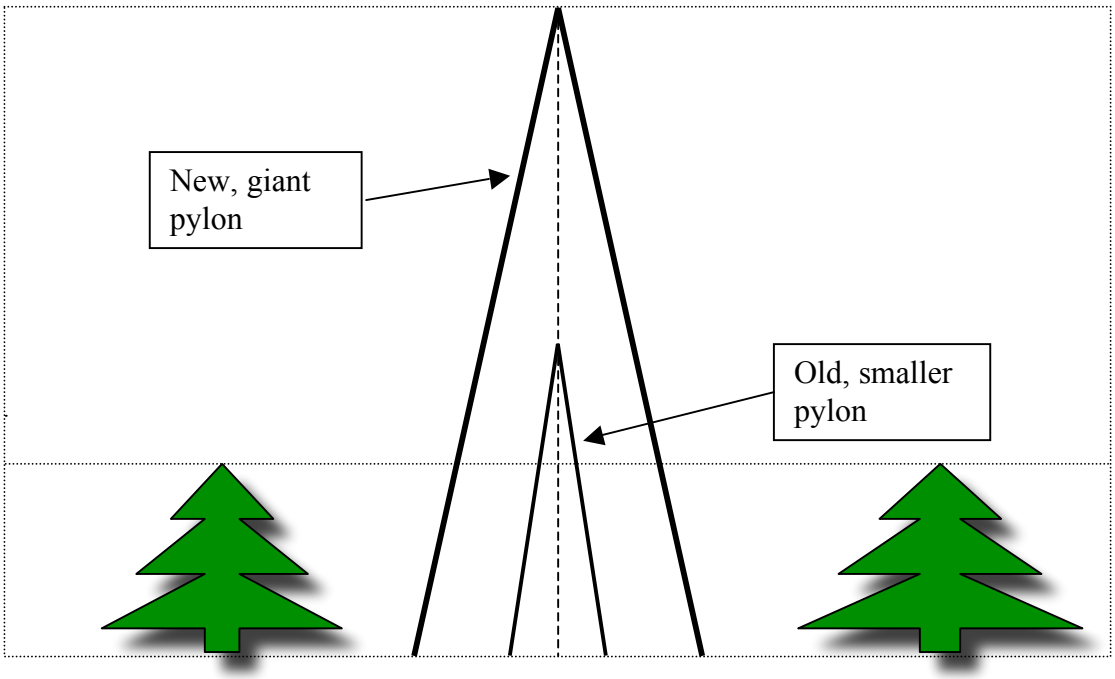
94. Again, the much thicker wires, and their being double-strung, is likely to make them much more visible than the wires on the existing 132kV line. In Yellowcraig Wood, this would mean that instead of the existing pylons giving the impression of being isolated constructions, the new line would be seen more as a continuous line. The wires on the new line would be elevated high above the treetop line near the pylons, but would sag and droop way down in between, adding to their adverse visual impact.

95. An even greater visual impact would result from the fact that, where the existing line comes through woodland, the existing pylons protrude above the trees only by approximately a fifth to a third of their height – this top end being, of course, the least sizeable part of the pylon. 400 kV pylons, by contrast, being about twice the height, will protrude by 4 - 6 times the height – see Figure 1, over – and their 2-dimensional visual impact would be up to 36 times as great.

96. The visibility of pylons in a wood would be even more emphasised by the requirement to cut a swathe of 80m through the trees for clearance – thus drawing attention to the line of pylons and wires coming through the centre of the cleared area. This would have most impact where the wood clothes a steep hill, as on the Ochils scarp. Mr Turnbull in his second precognition to the Strategy session made the point that:

> "Reduction in visual intrusion can be achieved by routeing the line to fit the topography, by using topography and trees to provide screening and backclothing, and by routeing the line at a distance from settlements."

Figure 1: Illustration of the relevant impact of the existing power line (132kV) and the proposed power line (400kV) in woodland



Notes to Figure 1:

- Mature trees may typically be around 20 m tall
- The existing pylons are around 25 m tall, so they stand out perhaps 5m above the tree tops in woodland, i.e. around one fifth of the height of the pylons, and around one quarter the height of the trees.
- The new pylons would typically be 50 m tall, so they would stand out about 30m above the tree tops, i.e. around 6 times the height of the old pylons above the trees, and around one and a half times the height of the trees themselves.
- In terms of the 2-dimensional impact, if the profile of the pylons is the same, the relative impacts of the new and the old pylons would be the square of the heights above the trees. I.e. the new pylons would have about 36 times the impact of the old ones.

97. On cross-examination, he agreed with me that conversely, visual intrusion would be very much increased if one were to route the line straight up a steep slope, cutting a swathe through woodland, at a location that is close to settlements and to a busy road. Precisely this situation would occur on the Ochils scarp, if the proposals were approved.

98. In Yellowcraig Wood, particularly, which is of the most sensitive and prominent position, the existing 132 kV line has just a narrow swathe of cleared ground around it – around 10 m wide – see StBP / 4 / 4. If this had to be increased to 80m – eight times the width of the existing swathe – the increase in visual impact would be enormous. The impact of construction works looks almost certain to increase this effect even further.

99. It would be hard to think of a more visually sensitive location to receive such a negative impact. As well as their wide visibility from national rail links, motorways and local A roads, these hills are, so obviously, the setting for and a significant part of the view from the iconic and internationally important National Wallace Monument and Stirling Castle. Adding giant pylons to their landscape settings, stringing them together visually with double, thick wires, having them all protrude very significantly above the tops of the lovely wood through which they come down, and on the skyline, while also scouring out great swathes of that woodland on either side of the line in order to construct and maintain it, can only have a seriously damaging impact on those iconic settings and views.

- Construction tracks, sites and associated works

100. In addition to the much greater impact of the 400 kV power line itself compared with the existing 132 kV one, there would also be the very great visual intrusion of the construction tracks. It is likely that this would be nowhere greater than where the route comes through Yellowcraig Wood.

101. Finding ways of constructing pylons down the scarp slope of the Ochils, through Yellowcraig Wood, would be exceedingly challenging (see StBP / 4 / 1). Document APL 5/16 gives, in Figure 5-23 on page 93, a profile of the route of the proposed overhead line through this area. It can clearly be seen to be very steep indeed – with an average gradient of 1 in 4. It seems probable that construction tracks in this area would be required to snake up / down the scarp slope in many tight bends, requiring very considerable land take not only for the running areas but also to shore up the tracks on the downward slopes, and perhaps most of all, at each bend. Our assumption is that this would require even greater areas of the trees, including the Ancient Woodland areas, to be felled than would even the 80 m clearance swathe.

102. Document StBP / 4 / 1 gives a brief assessment of the difficulties that would be encountered in the process of constructing access tracks and pylons through Yellowcraig Wood., and they are clearly many, and equally clearly cannot all be mitigated. One of the issues highlighted in this report, and also by Prof Thomas' precognition, is the danger of flooding and landslip. With houses, the kirk and the cemeteries below, these dangers must be treated with immense concern.

103. Document StBP / 4 / 1 also draws attention to the impossibility of clearing many of the trees and branches after felling (paragraphs 4.3.1, 4.3.4, 4.3.5), and of the likely need to import stone and other unsuitable building materials (paragraph 4.3.9), and highlights the resultant permanent impacts of the construction works which would lead to permanent scarring on this very prominent site, as well as permanent damage to the landscape where trees are removed on steep slopes.

104. Further, the proposed line is routed very close indeed to the cemeteries at Logie Kirk. For construction work to be carried out while funerals are being conducted would be wholly unacceptable, and it would also intrude very inappropriately in the private grieving of those who come to tend existing graves.

105. In the Sheriffmuir area, the proposals are to construct some 8.5 kilometres of track, which though “temporary” would nevertheless be constructed to the same standards as a permanent one. Such a track would provide a very visible additional eyesore in a landscape such as the Ochils AGLV, with its substantial and linear nature paralleling and emphasising the linear eyesore of the line itself. In much of its route, this construction track would be within 150 m of the Sheriffmuir road, and of the Dumyat / Cocksburn Reservoir path. It would be at right angles to the Dumyat / Cocksburn Reservoir path, within 150m of the road, and coming right up to the path to the Reservoir, hence highly visible and very visually intrusive.

106. The reality must be that the degree of damage done by the construction and use of access tracks will depend on a number of factors, notably:

- The terrain over which they are constructed
- The width of the track and the extent of construction sites
- The (axle) weights of the vehicles which will use them
- The number of vehicles which will use them, and
- The length of time for which they will be in place.

Evidence from Mr Jack and others in the Strategy session showed that arable land generally causes fewest problems for access and can be restored the quickest and with the least remaining scars, whereas wet moorland, especially where it is peaty, causes very significant problems requiring costly solutions, and may suffer permanent loss of habitat. On moorland particularly, it was acknowledged, the scar of an access track may be visible for many years – especially when viewed from above, as one would in the most sensitive parts of Sheriffmuir, from the flanks of Dumyat.

107. Considering the 8.5km length of access tracks that would be required for the overhead line where it crosses Sheriffmuir, Addendum 2 of the ES,

Annex B of Annex 14, Figures 1-3, suggests a 4m wide running track would be used, plus passing places, but shows that in most circumstances the total land take would extend by a further 3.5 – 13m for the supporting works. This is a considerable width of land – potentially up to 21 metres in places - requiring to be devoted to the access track.

108. The number of vehicles using this track would be very high, because the one track would give access to the entire 8.5 km of power line. Parts at least of it would be in use, one presumes, more or less continuously over all of the 4 years scheduled for the construction process. The ES estimates that no fewer than 16,000 heavy vehicle movements would be needed over this period.

109. The weight of vehicles using the tracks would be up to 100 tonnes (for cranes). It must be assumed that the track would get heavily embedded in the underlying ground in many places, and that it would leave a hefty scar at the end of the construction process. Scarring would be increased by the length of time over which it would be used – again, Strategy session evidence identified that the capacity of, for example, peat to be restored satisfactorily would depend heavily on the length of time that the ground remained disturbed. As the Sheriffmuir track would be required to be in use, with presumably more or less constant heavy vehicle traffic, for the entire 4-year construction period (assuming that estimate proves accurate), long term damage to the environment must be expected.

110. For Mr Jack to assert, as he did in his Strategy session evidence, that all traces of construction tracks would be removable is not credible and, indeed, he did concede that tracks used heavily over peat might lead to compaction of the peat and questions as to whether it could be restored. Mr Turnbull also gave evidence about the long-lasting scarring that can result across moorland and his evidence made much of the impact of construction tracks in the context of undergrounding.

111. It is worth noting here that it seems to us that the amount of land taken up for construction works across Sheriffmuir in particular – an 8.5km continuous track, many metres wide when all parts of its construction are taken into account, along with spurs to existing pylons, turning circles at the end of spurs, and substantial construction sites round each pylon, to say nothing of compounds, borrow pits, helipads etc – would be likely to be similar to that required for 2 cables per phase underground cables. The applicants have minimised the one, while maximising the other, in their evidence to date.

112. While it may be technically feasible to provide a solution to the challenge of constructing a new overhead line down the Ochils scarp, to do so without removing very substantial areas of the existing wood, and without creating exceptionally noticeable scarring, seems vanishingly improbable. Yet as repeatedly emphasised, this is precisely one of the most visible areas of the whole line, and a fundamental part of the crucially important settings for Stirling Castle and the National Wallace Monument.

- Traffic on the Sheriffmuir road

113. The ES acknowledges, correctly, that the Sheriffmuir road is wholly unsuitable for heavy construction traffic. But it still proposes to allow lighter construction traffic to use that road, and estimates that some 17,010 light vehicle movements would result, in addition to the estimated 15,970 heavy vehicle movements that would be intended to use the specially constructed, 8.5 km access track across the moor. As Mike Steward points out in his report on Yellowcraig Wood, however (StBP / 4 / 1), it is unlikely that all vehicles will comply at all times, and we have to expect resultant congestion and serious damage to the public roads.

114. The ES proposes to construct new passing places along the road – a potentially necessary task, given the lack of such opportunities in many parts of the road. But it is also one that, if not carried out with the greatest sensitivity, could do significant damage to the “feel” of the road across

Sheriffmuir, and the way that it contributes so positively to the experience of visitors to the area. In our view, it should be a Condition of any consent that (i) no vehicle larger than a car or light van may use the Sheriffmuir road; (ii) there should be no road widening; (iii) there should be no felling of mature trees; (iv) full reinstatement of all dry stane dykes etc will be assured.

115. We have considerable concerns that, given the already poor quality of this road, the additional traffic, including the likelihood that that will include some of the heavy vehicle traffic, no matter what the "rules" say in the Construction Procedures Handbook, will damage it still further. We are surprised that Stirling Council have not seen fit to comment on the implications for their roads, as on so very many other aspects of the predictable adverse impacts of these proposals.

- **Construction sites and other facilities**

116. In addition to the construction tracks themselves, there would also be extensive construction sites round each and every pylon, with even larger land take for winch sites, and in addition all the attendant borrow pits, site compounds, helipads etc. All of these would add greatly to the disruption, destruction and visual intrusion, both short and long term, resulting from the proposed project.

117. One way and another, the small scale, quiet, natural landscapes of Sheriffmuir, and particularly those around Logie and the access area for Dumyat and the Cocksburn Reservoir, would be very greatly damaged. Across Sheriffmuir, in particular, all this damage and intrusion would continue for at least the four years of construction, with the damage taking many years to reduce, and would result in permanent scarring of the landscape.

- **Habitats**

118. Mike Steward's report on Yellowcraig Wood (StBP / 4 / 1) confirms the presence of red squirrels and bats in the wood, and identifies serious concerns that the red squirrel colony would become unviable as a consequence of the tree felling required for the construction of tracks and pylon sites.

119. The presence of bats and red squirrels would also, in his view, require special measures to be taken when felling trees in the wood, to reduce the destruction of bat roosts and red squirrel dreys.

120. A further major concern in Yellowcraig Wood would be the destruction of the natural woodland. Mike Steward *(ibid*) identifies the probability that, without active management over a period of at least 10 years, the areas cleared for construction and maintenance purposes must be expected to revert to rhododendron and bracken, creating areas of impenetrability in the process.

121. It is our view that, in the event of consent being given to the proposals, stringent Conditions should be attached to ensure proper treatment of possible bat roost or red squirrel drey trees, and the provision of active and benign management of the Wood for at least 10 years, as recommended by Mike Steward.

- Noise

122. The issue of noise has not been satisfactorily dealt with by the ES, or in the Strategy session, most particularly for the Logie area where there would be so many properties and public buildings impacted by the proposals. In the Strategy session, Ms Clarke tabled revised estimates of the ambient noise levels that would be expected at particular locations. It transpired, however (StBP / 4 / 25) that some of her data were seriously wrong and misleading. SSE acknowledged that inappropriate guesses

had been made as to the names of a number of properties very close to the line in the Logie area.

123. One consequence is that there is now no data available for the noise predictions for Logie Kirk and its cemeteries, which are very close to the line and where crackling etc might be deemed particularly unacceptable, most of all outside in the cemeteries. A property named as Logie Kirk was included in the original data on Noise in the ES, but it appears this actually applied to a completely different, residential, property. It is of importance to the Kirk to get accurate estimates.

124. Requests for corrected data have not been acknowledged or actioned, and we consider this an issue that requires to be resolved.

- **Mitigation measures**

125. Should the power line upgrade be approved, despite all the concerns expressed by us and many others, there will be a need for very careful mitigation in the areas covered by this precognition. Some such measures are set out throughout Mike Steward's report on Yellowcraig Wood (StBP / 4 / 1).

126. Friends of the Ochils and Stirling Before Pylons request the opportunity for detailed involvement in the discussion of mitigation measures and Conditions to be attached to this area.

THE FAILURE OF THE ES TO RECOGNISE THE ISSUES

127. It is not my intention to conduct a statement by statement critique of the applicants' Environmental Statement, even though there is a very great deal to take exception to. Geoff Sinclair is giving an independent appraisal of the landscape and visual impact issues. But certain issues have to be commented on here.

128. The inadequacies of the ES are perhaps best appreciated by looking at the Non-Technical Summary (NTS) (included at the start of Volume 1 of the ES, and available at the time of its publication on SSE's website). This was advertised as the "easy-read" version of the proposals – the one that, with its 22 pages, would be accessible to members of the public, and at no cost – though they would need access to the internet to download it, and the relevant skills to do so.

129. We must assume that the NTS gave an accurate summary of the ES, and indeed, without crawling through both it and the ES, my impression is that the inadequacies of the one are a reasonable reflection of the inadequacies of the other. But looking at what the NTS had to say about the Ochils area, and appreciating what it chose to say and failed to say in the light of our local knowledge, shows an astonishing and deeply disturbing degree of distortion and misrepresentation of the likely impacts of the line.

130. Yellowcraig Wood is, properly, mentioned a number of times, but nevertheless, in other important respects it is ignored or downplayed. For example. Paragraph 7.3.1.6 acknowledges that the one major adverse effect on Forestry, along the whole line, would be in Yellowcraig – but limits that comment to the loss of 2.7 ha of Ancient Woodland.

131. Yellowcraig does not feature in the Landscape or Visual Effects sections – even though a comment is made on there being a moderate adverse visual effect on 4 "key tourism and recreation sites", of which one is stated to be Hermitage Wood (within the University of Stirling campus). I live on the edge of that wood, and am not aware of any point within it where the proposed line would be visible, apart from the little-used area that borders on the Logie Kirk road. But the line would, of course, go right through the adjacent Yellowcraig Wood, which has many people walking through it to Sheriffmuir and Dumyat, as well as being a delightful recreational area for people using the popular and pretty Witches Craig Caravan park at the

foot of the wood and of course a key aspect of the iconic views of and from the Monument and Castle – the key tourism attractions of this area.

132. Perhaps the greatest distortion comes in the section on Visual Effects where the NTS says, in paragraph 7.9.1.4,

> "Moderate adverse effects on the visual amenity of designated areas have been predicted in [3] areas, [one of which is] within the Braco to Denny area indirectly on the Touch Hills AGLV."

133. The Touch Hills are however across the far side of the carse, some 11 km away. It is quite extraordinary that anyone would see fit to comment on the possible visual effects on that AGLV, while omitting to comment anywhere on the multiple, continuous adverse effects that would without question occur throughout the relevant part of the western Ochil Hills AGLV, which the proposed line would go right through!

134. Residual moderate adverse effects on the landscape character and resource were predicted from the general presence of the line in just 8 areas, including 3 HGDLs, none of which is Airthrey Castle, the University of Stirling's campus, despite this also being designated an HGDL, and having the proposed line highly visible from substantial parts of it. I noted recently that Information on the Airthrey Castle HGDL was missed out of the relevant section of the applicants' core documents for the Strategy session, and was assured by the applicants that they would include it in their documents for the Stirling session, but this has not happened. Perhaps they would prefer to overlook its existence?

135. Quirky reference is made in the NTS to places where recreation or amenity would be affected adversely but again, no reference is made to the Dumyat / Cocksburn Reservoir area, despite this being the most frequently visited part of the entire Ochil Hills, let alone the Ochils AGLV. This fact, and relevant details, have been clearly drawn to the applicants'

attention from the very start of the consultation process in early 2004 (StBP/2/9).

136. It is acknowledged in the NTS (paragraph 7.13.1.1), in the section on Disruption Due to Construction, that "pedestrians and recreational walkers using minor roads such as …[giving 4 examples] would be subject to some disruption due to construction traffic" – but fails to acknowledge that the Sheriffmuir road, at just that part where people park, and use for access on foot for Dumyat and the Cocksburn Reservoir, would become part of the throughway for construction traffic for a number of pylons in the very close vicinity and down through Yellowcraig Wood.

137. Another incomprehensible omission is in the Cultural Heritage and Archaeology section. Paragraph 7.11.1.4 acknowledges "Major adverse effects on the setting of 3 cultural heritage sites have been predicted" – but none of these is the National Wallace Monument or Stirling Castle – the only truly iconic sites, of undisputed international significance, along the whole line!

BENEFITS ACCRUING FROM THE REMOVAL OF THE 132KV LINE

138. Because the ES so firmly set its sights away from the possibility of putting stretches of the line underground, it failed to recognise or evaluate the potential benefits that would arise from the consequent removal of the 132kV line. These however would be substantial, throughout the Ochil Hills AGLV, down the Ochils scarp, and in the vicinity of the National Wallace Monument. Such benefits need to be evaluated, and to be put into the equation when considering the relative merits of putting the line overhead to the east of Stirling, or underground to the west. In our view, they would add considerable weight to the case for undergrounding.

139. We note that, in England, a programme of undergrounding power lines has been started in Areas of Outstanding Natural Beauty, the equivalent of

AGLVs. Admittedly these are at present 132kV lines, or of lower voltage, and the cost of undergrounding them would be substantially less than for 400kV lines. Nonetheless, the principle is clearly well recognised and accepted there, that such designated areas, or at least their most sensitive locations, deserve to be rid of the ugly intrusion of overhead power lines.

SHORTCOMINGS IN THE UNDERGROUNDING CASE STUDIES DOCUMENT, APL 5/16

140. The applicants deposited document APL 5/16 very late in the day for the Strategy session, including "case studies" of possible stretches of route for undergrounding. One of these, case study 4, looked at routeing an underground cable up the Ochils scarp. It concluded that the terrain would be extremely challenging, too challenging in fact to achieve two cables per phase along the same stretch.

141. It therefore proposed a route that would take an underground cable right through the University of Stirling campus, along the side of its beautiful loch. Beyond the campus, the line would be split into two parts, with one set of cables routed right through the outskirts of Bridge of Allan village, and the other up the Roman Cut road, and on up the Sheriffmuir road to the Cocksburn wood (a small remnant of Scots pine wood). Here the two parts of the line would be rejoined, with a sealing end compound in the wood to allow the line to return to an overhead route.

142. The writers of this part of the report acknowledged that they had been time-constrained and did not actually visit the University campus to assess the impacts of case study 4. Perhaps they were unaware of the campus' HGDL status – certainly this is not mentioned in the evaluation of the impacts. Yet Historic Scotland, in its summary of the designation for Airthrey Castle (i.e. the University campus), describes it as

"A significant 18th and 19th century designed landscape notable for the beauty of the parkland and lake.

Work of Art: Outstanding
Historical: Some
Horticultural: High
Architectural: High
Scenic: High
Nature Conservation: High"

143. This is a surprising oversight, given the attention drawn earlier in the same chapter of report APL 5/16 to other HGDLs, as potential constraints, in the context of case study 5, even though not on its direct route, to the west of Stirling.

144. It may well be that case study 4 was offered as an "Aunt Sally" – too obviously unrealistic to deserve much effort or time. But this was not spelled out, as it should have been, in the report (which, as always, makes much of the problems of routing a UGC to the west of Stirling). In case this is not readily apparent, we make the following observations about the route proposed here:

- It routes the cable right through the University of Stirling's campus, which is designated a HGDL. A major feature of this HGDL is the beautiful, tree-lined loch. Construction of an underground cable beside the loch would require those trees to be cut down. No doubt the University would have more to say on this issue.

- It routes one set of cables up the Roman Cut. At its narrowest, this is only about 4m wide, yet much has been made by the applicants about construction sites for underground cables needing to be 30 m wide. If that were true, it would require huge amounts of rock blasting, resulting in destruction of the unique and lovely Roman Cut (see StBP / 4 / 4), with the blasting also having major adverse

effects on the grounds of the properties either side (a private residence, and the University).

- It would require the relevant part of the Sheriffmuir road to be closed for many months. Two points need to be made here:

  - The hill farm land beyond the Roman Cut - Parkhead and Fossaquhie farms - are owned and farmed by Drumbrae farm. That part of the Sheriffmuir road provides the sole means of road access between the various parts of the farms, and is used many times a day by them.

  - The case study suggests there is alternative access for those properties which currently use the Sheriffmuir road. Unfortunately, the only two alternatives are wholly unsuitable. If looking only at a map, and not reconnoitring the reality, the Logie Kirk road might seem to be an alternative but, as set out above, it is wholly unsuitable for any but the lightest vehicles, and impassable for much of the winter. It would be similarly impractical to use the Sheriffmuir road as an alternative means of access as this too is single track all the way, with very few passing places. It is not clear if it could cope with the increased levels of traffic, is unsuitable for heavier vehicles, unusable for much of the winter, and would anyway require a diversion of about 10 miles.

- It suggests a southern sealing end compound in a location that would be highly visible, and is very close to the River Forth and on its flood plain, at a point where the river is still tidal. Given the life expectancy of the line, and the prospects for climate change including rises in sea level and more exceptional flooding, this may not be a sensible proposal.

- The other sealing end compound is proposed for Cocksburn Wood, but as that comprises nowadays very few trees, the cover offered would be sparse, and the SEC would be highly visible from the Dumyat walks.

145. It seems to us that case study 4 rather neatly proves the point we have been making since the beginning of this process: that it is simply impractical to consider routeing an underground cable to the east of Stirling.

146. Given the very obvious drawbacks of the routes proposed in case study 4, one might expect these to have made rich material for incorporation into the chapter on Environmental Considerations for UGC routeing (Chapter 3 in APL 5/16). This sets out to "examine the potential environmental impacts resulting from construction and operation" (para 207) and claims to have been based on "the use of case studies including site visits" (para 208).

147. Similarly, one might have expected that chapter to use as its basis the requirement, set out several times in the ES and in precognitions for the Strategy session, that the fundamental aim for route development was "to minimise the impact on people who live, work and take recreation in the affected areas".

148. Case study 4, with its impacts as outlined in the paragraphs above, would clearly have offered considerations about routing a UGC through a busy workplace, through a designated HGDL, disrupting access to homes and within a working farm, and making major adverse impacts on an exceptionally unusual and atmospheric road in a strategically important position. Equally, had any thought been given to the practicalities of putting a UGC through the residential streets of Bridge of Allan, that too could have informed the work on Environmental Considerations.

149. However, none of these issues was included in that assessment, and it is consequently hard to give much credence to that piece of work.

THE NEED TO SEE FOR ONESELF

150. We gave a lot of thought to the question of how one is to visualise the impacts that the proposed power line would have on the Ochils area, and concluded that there can be no alternative but to visit - all the important places, and on a number of occasions.

151. The applicants provided a number of photomontages, but these quite simply fail to convey the impacts adequately. Indeed, experts in the production of photomontages, including Ian MacAulay from Envision, the company that produced the ones for the ES, gave very clear messages to a workshop organised by SNH in November 2005 (StBP / 4 / 12) that neither photomontages, nor printed photos, nor even photos viewed on a computer screen, can possibly convey what the eye will readily see, on site.

152. The fundamental limitation is the capacity for the camera to capture, and for prints and screens to reproduce, the same degree of contrast as the naked eye. On a bright day, a person can accommodate a contrast ratio of 1,000:1. The highest contrast ratio that can be reproduced by even a good quality computer monitor is, however, only 100:1 – and the best printed image manages no more than a contrast ratio of 10:1. Anyone who has tried to take photographs to represent the true sense of a landscape is likely to have come across such limitations: objects as prominent as wind turbines, clearly seen by the naked eye albeit at some distance, may simply not appear on the photograph.

153. A good illustration of the differences between computer screen images and printed ones is given by the applicants' recently circulated photomontage for the view from the Wallace Monument. On the computer

screen the new pylons are quite visible; on the printed page, far less so. A visit to the site, and making the comparison with the existing, smaller pylons, would readily illustrate however how even the computer screen image greatly reduces the visual impact of the pylons.

154. The same photomontage also illustrates how crucial are the parameters built into the generated image. In this case, it is apparent that the photomontage, of how the new pylons "might" look as they come down the Ochils scarp, in fact does not attempt to show the impact on that image of the felling of many trees around the new line, for safety and for construction tracks. Instead, the image retains the current situation, where the swathe cut for the 132kV line is as little as 10 metres wide, and even then heavily overgrown with shrubs. The impact of the true situation would be very much greater indeed.

155. The presenters to the SNH seminar concluded that:

- A photograph can <u>never</u> replicate the experience of a view on site; and

- There can be no substitute for professional assessment on site, which is the <u>only way</u> in which the actual visual impacts of a proposed development can be truly recognised.

156. They did however accept that photographs and photomontages may play a role as an aide memoir after such a visit, provided they are used properly (for example, being viewed from the correct distance).

CONCLUSIONS

157. We worked assiduously throughout the consultation process, preceding the publication of the final proposals, to bring to the applicants' attention all the impacts that their proposals would have on the Ochils area, both its south face and its interior. It has been a great disappointment to see these

inconvenient truths being ignored, and the major omissions of relevant assessments in the Environmental Statement, as emphasised so well by the bizarre distortions of the Non-Technical Summary. This has no doubt been aided by the personal value judgements made by individuals throughout the assessment process.

158. Very early on in the Strategy session, Ms Wilson drew the attention of the Reporters to a part of the findings of the North Yorkshire case, and this has been repeatedly referred to. It is worth quoting again here:

> "This section of line would have a very serious impact upon fine views over a Special Landscape Area towards the Cleveland Hills, the North York Moors National Park and the cherished landscape feature of Rosebery Topping. These views are enjoyed by many thousands of people including local residents of Nunthorpe and the surrounding area, users of the sports and recreational facilities between Nunthorpe and the bypass and road users on the immediate busy road network.
>
> " In addition to the impact on the wider view the line would also dominate and seriously impair the attractive rural setting of Nunthorpe Church, a Grade II listed building.
>
> "We consider that the combination of impacts which cannot be satisfactorily avoided by alternative routeing and the large number of people affected are compelling reasons for requiring this section of line to be undergrounded.

159. In our view, this particular quote quite neatly matches the situation that we have in the Logie / Ochils scarp / Dumyat area of the proposed route. In North Yorkshire, the area was a Special Landscape Area. Several witnesses confirmed that the closest equivalent to this is in Scotland is an AGLV. Similarly Nunthorpe Church, to which the Inspectors drew attention, had a Grade II listing, that was identified as being the broad equivalent of a Grade B listing in Scotland – the listing of the very popular Logie Kirk.

160. So we have major similarities: the areas concerned are similarly designated, they have cherished landscapes including particular hills, they

are enjoyed by thousands, they would dominate the attractive rural setting of a listed church, and so on.

161. But we appear to have even more reasons for undergrounding in the Logie area of the Ochils. We have encroachment on the HGDL of Airthrey Castle. We have the hills providing the backdrop to the setting for iconic buildings of international importance. And we have the line routed right up through the scarp slope of the Ochils, through a swathe cut through trees, whereas in Yorkshire we understand the route would have been some distance away from the higher ground.

162. In addition, we would have the considerable benefits of removing the ugly 132kV line from these sensitive and important landscapes, if the line were put underground.

163. All this, in our view, is enough to justify undergrounding the route to avoid these impacts and, as case study 4 so amply demonstrates, if that were the case then it would need to be put to the west of Stirling because there can be no suitable route to the east.