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Proposed Wind Farm  
at  
Greystone Knowe  
near  
Fountainhall, Scottish Borders

Application to Energy Consents Unit of Scottish Government  
to erect a wind farm of

14 wind powered turbines up to 180m in height

Joint Objection by Stow & Fountainhall and Heriot  
Community Councils

February 2022

## **Greystone Knowe Wind Farm**

### **Joint Response by Stow & Fountainhall and Heriot Community Councils**

The Community Councils **object** to the Greystone Knowe scheme and consider it should be refused s36 consent and deemed planning permission.

#### **Introduction**

1. Greystone Knowe wind farm is a s36 proposal for 14 turbines up to 180m in height on open farmland about 2km west of the A7 in the Gala Water valley. It would be about 2km south of Heriot and about 2.5km west of Fountainhall.
2. There are no wind farms in this area of such height. There are 3 turbines up to 105m in height at Carcant, to the west of the main part of Heriot. There are 12 turbines at 125m in height at Toddleburn, which lies about 3km east of the A7 between Fountainhall and Oxton.
3. The impact of the proposed turbines on the Gala Water valley and its settlements would be highly intrusive due to their height. Although the montages in the EIA provide some insight, local residents have no obvious way to envisage what the completed wind farm would look like when it might be operating as there are no comparable operating wind farms in the area.
4. In addition, there would be some 12km of access tracks, starting at a minor road junction next to Fountainhall village. There would be two or three borrow pits and an energy storage unit so far unspecified. This would therefore be a major industrial project sited in an area of upland farmland. The landscape in the area extends westwards across remote hill and grouse moors which are totally free of wind farms apart from the distantly sited Bowbeat wind farm. If this scheme is given consent, it would extend large wind farms into the Moorfoots Plateau landscape area where so far, they have not been considered or constructed.

## Landscape & Visual Effects

### Comments on Chapter 5 of the Greystone Knowe EIA: Landscape & Visual Assessment

5. The assessment sets out the current methodology considered appropriate by the landscape architects for the application before starting by considering the overall landscape effects.
6. It states that the Gala Water valley is:  
*“A medium scale enclosed landscape of smooth curves, strongly influenced by the surrounding uplands.”*  
This can be seen by looking at any of the montages. The “medium scale” is dominated in all the nearby montages by the turbines towering above the natural features turning a landscape devoid of turbines into a “windfarm landscape.”
7. It goes on to accept that the effects of the turbines would differ in various areas but concludes that in an obviously highly Sensitive location they would be of Substantial/ Moderate Magnitude, yielding a conclusion of Major/Moderate Significance (significant) and of Adverse character. However, there is little sign in the text that the assessment considers whether structures of this immense size would make a step-change to the landscape’s character at distances of up to 5km. There is no discussion of the appearance of the turbines when rotating, despite the proposed blades being up to 150m in diameter. This should be compared to the current generation of operating turbines, which in this area do not have blades in excess of 100m in diameter. This makes it clear that these turbines would be seen over very long distances as well as over shorter ones affecting the immediate area. There is no comparison of total swept areas, which is a useful index
8. It is the Community Councils’ view that the LVIA and RVAA systematically understate the level of adverse landscape and visual impacts, including the cumulative impacts. **We have not yet seen responses from SBC or NatureScot which should contain detailed assessments of the overall LVIA assessment, and their commentaries following visits to the individual viewpoints.**  
**We may wish to comment further at that point.**
9. The text considers the recommendations contained in the Ironside Farrar Landscape Capacity Study, which is now part of the SBC Supplementary Planning Guidance on renewable energy. It quotes part of the Development Capacity for the Moorfoot Plateau Area, which is the relevant area for this application, but fails to set out the

caveats (added here in italics). The Study accepts that up to 10 turbines over 120m could be accommodated

*“in smaller numbers where topography aids screening ..... turbine developments should not adversely encroach onto the visually prominent escarpment and skyline facing Edinburgh or the setting of the Tweed Valley to the south.”*

but in the detailed paragraph at para 6.4.1 in Ironside Farrar makes the proviso that schemes might be accommodated in the central part of the plateau as

*“an area of dissected Plateau Moorland within the central Moorfoot Hills with lower intervisibility from receptors, sited away from settlements and areas of local landscape designations. Screened and topographically contained by the upland landscape, this area could be capable of accommodating a mid to large size wind farm with turbines under 120m or a smaller number of turbines over 120m, (NB Although not a landscape designation a large area of the Moorfoot Hills has been designated as SSSI and SAC that could restrict turbine development).*

10. These caveats are not met. Firstly there are 14 turbines in one group, which is clearly unacceptable, especially given the proposed 180m height as against “Over 120m”. Secondly there is absolutely no screening of the turbines by topography; as stated above these turbines completely dwarf the local topography, especially as they are placed close to the edges of the Gala Water valley. Thirdly the site is close to several settlements and even closer to small groups and individual houses. The text and associated maps in the Landscape Capacity Study make it clear that ANY scheme (of whatever height) should be set well away from the Gala Water valley to avoid precisely such unacceptable impacts.

11. Finally the ZTVs make it clear that the turbines will indeed be seen from many parts of Midlothian and East Lothian. It might be argued that they are sufficiently set back from the escarpment for this not to be an issue, but once again it is the enormous height of the turbines that negate that. The ZTV at Fig 5.3 shows just how much visibility there will be into Edinburgh and even into Fife.

12. Most of the key considerations set out in EIA para 5.6.4 on primary landscape and visual mitigation are simply not met by the development, namely

- It is NOT set back from surrounding, more sensitive, valley landscapes
- It does NOT AT ALL maximise offsets to residential properties and nearby settlements
- It is NOT sufficiently separated from other large scale wind energy development
- The turbines are NOT sited to create a balanced appearance, avoiding the appearance of dramatic changes of turbine spacing, height and visual clutter

Several of these negative points are demonstrated in the following section referring to the montages at various Viewpoints.

13. Viewpoint 1 Montage 1d, shows how the turbines would appear from the Crookston area of Heriot, looking from the B6368 across the Gala Water valley to the farmland beyond. The turbines range across the view, all fully visible from near to their base, towering many times higher than the dwarfed plantations around that area. That does give some idea of their height and how these turbines would dominate the landscape. Inevitably the eye will be drawn to them whether they rotate or not, and the current view of gentle rounded hills receding to the horizon would be totally changed.

14. The assessment of this view at EIA para 5.7.34 concedes that the turbines would appear as *“new, very large structures appearing over the skyline”* but attempts to also suggest that some screening would occur at lower levels. Whilst it is true that some of the towers would be partially concealed, the hubs and the blades would not. The montages do not show the effect of the turning blades, but local people have experience of this from local wind farms such as Toddleburn, and it is perfectly clear that it is the motion that immediately attracts the eye. No video animation has been supplied

15. It must also be noted that the Toddleburn rotors are 90m in diameter – for Greystone Knowe the rotors would be 150m in diameter. That is an increase of about 67%. The montages do not demonstrate this clearly. Such vast structures will dominate the

horizon wherever they are visible along the Gala Water valley and will be even more dominant from higher ground in the area.

16. Viewpoint 3, Montage 3c gives a demonstration of this dominance from the A7 on the valley floor at Hangingshaw. This point is just to the south of the main part of Heriot with the Borders Railway running southwards close by. The turbines are in a relatively tight cluster with the hubs clear of the horizon and a considerable degree of overlapping. This will accentuate the effect of the turning rotors and will inevitably draw the eye of motorists driving south. It will also be the view from the houses in this area that face west.
17. Heriot is a diffuse community with separate clusters of housing. Just off the A7 there is a substantial group of houses referred to as Heriot Station, (although there is no railway station there). There will be some limited visibility of the turbines to the south, which will become much more visible as residents drive towards the B709 to reach the A7, or alternatively use the higher ground to the west for recreation. There will be visibility of the turbines along the B709 travelling west, similar to the view from Hangingshaw, until reaching Heriot Toun. After that the topography to the south screens the road area and the next part of Heriot which starts around the School and Heriot Mill, and then extends to Borthwick Hall.
18. However, Viewpoint 2 Montage 2d, shows the view from just above these houses from Core Path 33, which is an extensively used footpath. Nine turbines are in full view with a further four blades visible, at around 2.5km distance. The Gala Water makes a decisive turn to the west north of Haltree Farm and south of Heriot, and the settlement follows this valley line. However, this results in the houses in this area still being very close to the turbines even if not visible from the properties. The EIA accepts that where the turbines are visible there will be the same adverse effects as from the Crookston area.
19. Other areas of the Heriot community affected will be Nettlingflat, Falahill, and Brotherstone. Viewpoint 5 Montage 5d shows an unobstructed view of all the turbines from Nettlingflat, which is a settlement in its own right on higher ground lying to the east of the A7 just north of Heriot Station. The montage clearly shows Heriot station below. Above the substantial conversion of Heriot House the turbines are clustered towards the horizon at a mere 4.5km distance. They form a distinct group with the blades outlined against the sky and no backcloth of ground to mitigate their visibility.

20. There is some visibility from the houses at Falahill, although there is some screening. However, the A7 comes through this area, and in places there would be unobstructed views of the turbines for drivers coming south. These views would come and go as the traffic moves south all the way to Fountainhall.
21. Fountainhall is about 2.5km to the east of the turbines. It is a compact village settlement of some 149 houses, on a minor road in that area named as the Old Stage Road which runs all the way down the valley between Heriot and Stow to the west of the A7. There are groups of houses scattered all the way along this road, usually associated with farms, but Fountainhall is much larger with its own primary school and a village hall. The area known as Still Haugh is a substantial group of recently constructed houses.
22. Viewpoint 4 Montage 4d shows the view of the turbines from just outside the village. Eleven are fully visible with the remaining three mainly showing just blades. This is another view of the turbines at approximately 2.5km and shows yet again how they would completely change the landscape, in this case looking to the west, with a very long line straggling right across the view, towering over all other features such as plantations and rendering houses a slight distance away from the village as totally minor features.
23. The EIA attempts to explain away the effects by referring to the views within the village and asserting that recently planted trees will eventually offer screening. It takes no account of the fact this is a rural village, where people move around on foot and in their cars, when they would then have full view of the turbines, constantly turning on the western horizon. There will be no escaping these views, and there can be no doubt this would be devastating to many.
24. SBC Planning Policy states that turbines should not be closer than 2km to settlements – in effect stipulating exclusion zones around them. Fountainhall is large enough to have such protection and it should be borne in mind that the purpose of this policy is to protect peoples' amenity. Furthermore the policy was implemented some years ago, when turbine heights were much less, and blade lengths much shorter. At that time SBC also stipulated that individual properties closer than 2km to proposals required to be assessed with a Residential Amenity Assessment. That distance has now been increased to 2.5km and was agreed for Greystone Knowe. Yet the Fountainhall village properties have not been so assessed, with merely a couple of paragraphs in the LVIA devoted to the community.

25. The EIA itself states that Fountainhall is 2.5km distant. Accepting that such a large number of houses lie within the RAA zone seems to be a fact the developers do not wish to concede or draw attention to. It can be noted that the RAA lists 17 individual houses and thirteen minor groups of houses in total. Adding Fountainhall to that list would triple the total of houses. At what point would decision makers conclude that the turbines were clearly too close to too many houses? We suggest that this ruling should be applied in these circumstances to Greystone Knowe.

### **Visibility from the A7 and the Borders Railway.**

26. This has already been mentioned in relation to Falahill above. The EIA concedes that there will be open and continuous views of the turbines from Falahill as far south as Torquhan along the A7. Mention is made of screening in odd places from trees – but it should be noted that one such small plantation at Burnhouse has been badly damaged in the recent storms. This point should be borne in mind throughout consideration of the LVIA effects – screening by trees can be wrecked in a single night and should therefore not be relied on. Felling is invariably carried out at some point, and there is now considerable impetus in forestry practices away from blanket softwood planting towards much more open planting of native species. This will delay for many years – perhaps a generation -- any eventual potential screening.

27. The A7 is the Borders Tourist Route to Edinburgh and has considerable tourism traffic especially in the summer. Whilst the turbines might cause adverse comment in passing, it is doubtful if the proposal would deter this traffic in any significant way. However, it should be borne in mind that local people make extensive use of the A7 on a daily basis, and they will have their amenity affected by seeing the turbines on a constant basis coming and going. This will particularly apply to those who live within 5km or so of the proposed wind farm, as this feature will add to any adverse effects they suffer at their properties, or when moving around near them on foot.

### **Cumulative Visual Effects**

28. The EIA sets out the list of relevant wind farm within 20km. There is analysis of the effects from existing projects in the LVIA annexe at each Viewpoint, but there is no attempt to summarise the most important effects, as these will occur from two other projects about to enter the planning system.

29. Scawd Law is another s36 application of 12 turbines up to 180m in height about 6km south of Greystone Knowe on the flanks of Windlestraw, the highest hill in the

Moorfoots. The full application for the scheme is about to be submitted to the ECU having been delayed whilst access issues were rearranged. There is a Working Group involving local communities.

30. The ZTV for that project shows extensive visibility in all directions, due to the very high elevation of the site, so that the turbines then extend well above even the highest ground. The Cumulative ZTV at Figure 5.13 shows the two schemes will be widely visible as far away as Midlothian and East Lothian. The EIA assessment attempts to downplay the cumulative effects of two such schemes emerging in close proximity to each other, by stating that in many places only one or other of the schemes will be visible. Although this is true, it is clear from the Cumulative ZTV that there are also many areas where both will be visible in whole or part.
31. However, this raises an important issue that the EIA does not discuss at all, which is that if both schemes are consented there will be very few places within 10kms that will not have visibility of one scheme, or the other, or both. This will be a huge change to the entire area and a significant impact on the LCT. As already noted, the Moorfoot Plateau area has hitherto been free of large-scale wind farms. There is now a risk that this will change totally. There is already a major scheme to the west at Cloich Forest, which is another s36 scheme already consented but now with a revised application for 12 turbines at 150m in height. This scheme is some 17km from Greystone Knowe so it will be visible, but it is accepted the combined effect will be low. Nevertheless it will be there to add to the overall effects from some vantage points.
32. There is a further threat, which the EIA does not cover at all. Just over a year ago, a proposed wind farm called Wull Muir, sited about 3km northwest of Heriot Station, was refused consent at appeal. Energiekontor have already revised the scheme after discussions with SBC planners and have issued a PAN notice to reapply on a slightly different footprint. Discussions with the developers inform us that an application will be made very shortly to SBC for eight turbines up to 135m in height. The site will be very close to Viewpoint 2, and so approximately 2.5km north of Greystone Knowe, as the turbines will be moved south and east of the original application.
33. Energiekontor have already placed many documents in the public domain on their web site for the application. The local ZTV reveals extensive cumulative visibility with the Greystone Knowe turbines at the places where the Greystone Knowe turbines can be seen, and also often the Scawd Law turbines, thus Heriot Station, Nettleingflat, Stagebank, Crookston, and as far as Fountainhall but less so further south along the Gala Water valley. This obviously also includes the A7 and the

Borders Railway. From higher ground the intervisibility of the three wind farms will be extensive – an obvious example will be Lauder Common which is a Viewpoint for all three applications.

34. Whilst this latter scheme is a late addition for the Greystone Knowe applicants to consider, it is clearly of utmost relevance, and adds considerable weight to local peoples' concerns that suddenly the Moorfoot Plateau is going to suffer a rapid transformation to a Landscape with Turbines. Stow & Fountainhall and Heriot CCs made a joint objection to the original Wull Muir application and made the following comments then, which are even more relevant now.

### **Inadequacies of Planning Policy for Multiple Wind Farms**

35. The situation that has emerged in Stow & Fountainhall and Heriot, with a possibility of three further wind farms, two of them much closer to the settlement areas than the three operational wind farms, has emerged in a piecemeal way over the last two years. The planning system is ill designed to cope with such situations (which are not unique to this area) as each wind farm must be considered on its own merits. Furthermore, if one or two of the applications which are furthest forward are approved, this then inevitably weakens the case for refusing subsequent schemes. But the local authority and the ECU may direct that all three be considered together. That would demonstrate an holistic approach to the area.
36. This may sound unlikely, but there are clear precedents for exactly this happening very close to the local communities. It is already accepted that the entire length of the northern Lammermuir Hills is in real danger of becoming a “Wind Turbine Landscape” and any further expansion of this effect to the west and into the Moorfoot Hills ought to be restrained. Borders residents have observed in dismay how developers and their professional advisers set about securing consent on wild upland landscapes. Firstly, the argument is made that a broad expanse of empty hills (a “large scale landscape) can accommodate a wind farm on its own. Then after that ground has been occupied, the next argument is that as there is now a wind farm in place, the area is less valuable as wild upland and so a further wind farm can be tolerated. And finally, by staged creeping consents, the current status we can see (for example) at Crystal Rig is reached, where so many turbines have been built that now the landscape has been entirely degraded and its character irreversibly changed. So it incontrovertibly becomes a “Wind Turbine Landscape.”

37. SBC Planners have in the past attempted to follow a “cluster and space” policy towards the emerging pattern of multiple wind farm applications in the Borders. This has to some degree been followed in their approach to the Crystal Rig cluster, and to the Dun Law cluster. If the Dun Law cluster is allowed in a piecemeal fashion to sprawl significantly to the west with the current potential schemes of Greystone Knowe and Wull Muir this would effectively destroy the “cluster and space” approach. It would further change the character of the Moorfoot Plateau, and then the potential addition of Scawd Law would transform the whole landscape area irretrievably into a Wind Turbine Landscape.

### **Night-Time Effects**

38. Greystone Knowe turbines will require visible aviation lighting, as will Scawd Law. Several of the montages have night-time photographs with the turbines superimposed with the required lighting. We consider these montages are unrealistic and give no idea of the impact of the lighting. There appears to be just a red dot shown as each light – similar warning lights on local radio & TV masts can be seen for 20kms away easily. That of course is their purpose – if the lights do not immediately catch the eye there is not much point to them.

39. The night sky in the area is very dark, with little ambient lighting – to the extent that the glow from Edinburgh is clearly visible to the north. Recently the community was forced to accept road lighting at the two rebuilt road junctions on the A7 at Heriot and Fountainhall when the Borders Railway was constructed. Many people objected to this as they value the dark skies but were overridden. Extremely bright lights at the corners of the proposed scheme will be obvious wherever there is a view of the turbines and will destroy the previous view of an entirely dark landscape.

40. In addition, portrayal of a single red beam, whatever its strength, is misleading. As the blades rotate red light is reflected off one passing blade to the next, and the next, and so on. The impression therefore is of a moving or flashing red light. This phenomenon can be observed at Middleton windfarm, off the A74 south of Glasgow in East Renfrewshire.

## Noise

41. The recent consultation on Onshore Wind Policy which has just closed accepted that the ETSU-R-97 assessment method for wind turbine noise is seriously flawed and needs revising and updating. It is now nearly 25 years since it was first drawn up, long before the current generation of ultra-high turbines entered the market, and it also lacks any guidance on Amplitude Modulation (or in lay terms rating the effects of the “beats” of turbines).
42. Scottish Borders Council maintain that the day-time noise limit of 35dB should not be exceeded except in exceptional circumstances – although the ETSU-R-97 guidance is much looser. Reporters have generally backed SBC in their approach, whereas the wind industry often argues for higher limits when turbines are placed too close to houses. SBC insist on 35dB to protect local peoples’ amenity – in blunt terms even 35dB (or lower) is intrusive and unsettling to some people with its relentless nature. Furthermore reliance on enforcement of the Planning Conditions stipulating noise limits is broadly speaking a hopeless task. There have been several examples in the Scottish Borders where this has been attempted, and the whole process requires extensive monitoring, then evaluating by noise consultants, appointed by the operator, and then finally persuading overworked Environmental Health Officers to attempt any enforcement. Usually the whole process just peters out, and local people are left suffering the noise. Such Court actions as there have been, taking advantage of the Statutory Nuisance legislation, have taken upwards of two years to bring to a conclusion.
43. We are therefore considerably concerned that the Greystone Knowe developers are arguing for an increased day-time noise limit of 37dB as there are several properties near to the turbines that will suffer noise up to and exceeding that level. The worst affected are properties at Corsehope Farm with levels close to 40dB at times or nearly twice the permitted levels. This is clearly unacceptable and is a very strong indicator that the proposed wind farm is unacceptable on environmental grounds.
44. To partially mitigate the obvious excess noise the EIA sets out a mitigation scheme requiring 4 turbines to be operated in a reduced mode, lowering their output and so reducing the noise. It is suggested that will only be required for a limited range of wind directions and speeds. This never works because both the wind direction and speed are highly unstable, whilst the operators will be too slow to switch operating mode. It must also be noted that the precise turbine to be

deployed has not yet been identified, and so desk top analysis of the levels of mitigation cannot even be attempted.

45. To fully comply with ETSU limits, which is in itself difficult enough, it would be necessary to insist that the noise – restricted modes are permanently in effect. In our view Wester Corsehope and Corsehope Farm will be uninhabitable in the long run if the turbines are built as specified. Neither the farm manager (Corsehope Farm) nor tenants (Wester Corsehope) will tolerate this level of noise. The situation cannot be dealt with by removing or constraining a single turbine - it is inherent to the layout and construction of the whole project.
46. The issue is not one of cumulative noise - background noise from Carcant and Toddleburn is trivial. However, we have noted that there is no account of Wull Muir which will be more significant. This would only make the situation at Corsehope worse. Furthermore it is clear from the noise contour map Figure 10.1 that the 30dB level of noise extends a considerable distance from the Greystone Knowe turbines in most directions. This includes the areas around Heriot Mill and School, Borthwick Hall and along the B709. There can be little doubt that the cumulative noise with Wull Muir in these areas will be exceed the ETSU limits.
47. It should also be pointed out that the EIA provides summarised but not the full details of the warranted noise curves for the candidate turbine in the various operating modes. The point is that these are noisy turbines - 108 dB at standardised wind speeds above 6m/s. In order to reduce the noise to a compliant level the operators will have to sacrifice a lot of output. The operators will no doubt be very resistant to doing this on an intermittent basis which is why a permanent restriction is likely to be required.
48. The Community Councils requested at their December meeting with the applicants that the full raw noise data be provided to them so their consultants can re-evaluate the calculations and conclusions. The applicants have just on February 10<sup>th</sup> released the raw data to the Community Councils, so it will now be evaluated independently. We consider such an evaluation to be essential before this scheme can move further in the planning process.
49. **The Community Councils reserve the right to respond further on noise once this evaluation has been completed.**

## Access to Site – Fountainhall

50. The EIA at various points mentions that the access tracks for the proposal will start with a junction with the Old Stage Road at Fountainhall. There appears to be no explanation in the text about how it is proposed this should be done, apart from mentioning that the Old Stage Road at that point is a single-track road. The only illustration of the junction appears to be shown on Figure 2.1 showing a large bell mouth construction to the west of the Old Stage Road, to turn the access through 180 degrees to join the start of the access tracks which run parallel with the minor road to Brockhouse and eventually Heriot. The access track is shown as crossing the minor road that branches off to Pirntaton, Over Shiels and the Raeshaw Estate.
51. The proposed junction is almost level with the access road to Still Haugh housing estate and only just short of Fountainhall School. No reference is made anywhere about the close proximity to residential properties or even more sensitive, the school. Chapter 11 of the EIA has detailed assessment of traffic movements and their effects on the wider road network and communities, but fails totally to consider Fountainhall.
52. Traffic movements will largely be confined to working hours from 0700 to 1900 Monday to Friday, and 0800 to 1400 on Saturdays. The assessment considers two scenarios for traffic movements, one assuming worst case, the other that most basic road building material etc can be sourced on site. Tables 11.12 & 11.13. The worst-case scenario shows 304 movements each day at peak with a very large number of heavy lorries, the other scenario shows “only” 70 movements of mixed traffic each day.
53. All this traffic will travel on the Old Stage Road, which is single track, to access the A7. There will be inevitable damage to the verges of this road, which is also the route pedestrians from the village use to access the local bus route on the A7. No doubt at times the road will have to be closed to allow abnormal loads. The traffic will reach the edge of the village, and then perform the 180 degree turn on access track to travel further. This will involve braking, a very sharp turn with associated noise, revving engines to provide power for the turn, followed by further excessive engine and exhaust noise as the lorries start to climb the gradient at the start of the access route. There will also be exhaust fumes, dust, dirt and mud in wet weather. This will be in close proximity to the village school, its playground, parents and children coming and going.

**There is assessment for dirt and dust, noise and so on in Chapter 11, but none of these assessments are specific to the Fountainhall and all concentrate on the A7 and other routes. This is an extraordinary omission.**

54. The minor road through Fountainhall carries local traffic, which is mainly local people coming and going. There are occasional goods vehicle accessing local farms, but little heavy through traffic. However, there are heavy timber lorries using the road currently, under a five year extraction plan. They are limited by agreement to no more than 10 movements a day to preserve the amenity of the village. The road does attract cyclists and pedestrians due to its very quiet nature, and because it runs from Heriot to Stow and then over to the Tweed Valley. The transformation into an access route for a major construction project would be devastating for the community.

55. Para 11.9 deals with mitigation. We would point out that both Fountainhall and Heriot have detailed experience of hosting heavy construction in their communities from the recent construction of the Borders Railway. Comments such as “All materials delivery lorries should be sheeted to reduce dust and stop spillage on public roads” and “Specific training and disciplinary measures should be established to ensure that the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway” meet with total derision and hollow laughter.

56. We were promised the same previously during the railway construction – it was totally ignored for months on end until it became such a scandal that some token efforts were made to clean up. Even the roller washes for the lorries’ wheels weren’t used until forceful protests were made. Residents were having to wash their cars weekly, and even that made little difference. Pedestrians resigned themselves to having a complete mess on their footwear. Matters reached such a pitch that the liaison meetings broke down and the contractors just ignored the communities. The reason of course is obvious. Time is money, and irksome regulations are just ignored until enforcement action is taken.

57. The prospect of this happening all over again, right outside Fountainhall, next to the village school, is totally unacceptable. Twice a day considerable traffic and pedestrians will be coming and going to drop or collect children. There has been no attempt to assess this aspect of access, and the local community has noticed this, and expressed their views forcefully at the January meeting that Coriolis attended. The developers response to this was to re-iterate points from the EIA,

and offer assurance by stating a CTMP plan would be drawn up with SBC prior to construction work commencing. However, by that time it will be inevitable that construction proceeds, with no realistic chance of amelioration for local people. SBC will have their hands tied by consent having been granted for the scheme, and work needing to proceed. SBC have no powers to stop contractors using the public road – or to enforce agreements if they appear to be being breached apart from persuasion. We take no reassurance from this attempt to smooth over our concerns.

### **Residential Visual Amenity Assessment**

58. Comments have already been made about the Residential Visual Amenity Assessment (RVAA) above in the paragraphs concerning visual effects on Fountainhall and Viewpoint 4. Whilst the EIA writers clearly did not wish to include Fountainhall in the RAA, the omission of some 70 houses that fall within the outer perimeter of 2.5km undermines its bland conclusion that only 17 individual and 13 groups of residential properties have needed to be considered, and that several of those do not have views of the turbines. It is clear that most of the Fountainhall properties have potential views similar to the Viewpoint 4 montages, although it is accepted a number of the houses are on slightly lower ground and therefore see less of the turbines. It is also clear that many houses would not have direct views from windows, but there has been no attempt to assess how many. Equally many of them will have views from their gardens and when walking around the village. The village school will have views from the playground – not to mention views of the construction traffic as set out above. None of this has been properly assessed. Indeed it may well have been too provocative to have drawn attention to Fountainhall, as mentioned above. At what point would decision makers consider such a large number of properties or indeed a whole village points towards the application as being unacceptable on environmental grounds?

59. We have also drawn attention above to the systematic underestimation of LVIA impacts by the various assessments. We consider that one of the clearest demonstrations of that is this RVAA, which attempts to assert that even the most drastic and dramatic views of the turbines are not considered to render some properties unsuitable places to live. Frankly, the language used is derisory and shows contempt.

60. Upper Corsehope Cottage P02. There are montages provided in the RVAA. As

the view of turbines extends to almost 90 degrees it requires two montages to show all the visible turbines. Several tower above plantations despite these being in the close foreground. Some of the turbines only show as blades, but those are huge too. Once again emphasis must be put on the montages showing a static scene, in reality the blades would all be turning and would naturally dominate the vision of anyone looking anywhere near the turbines. The cottage faces in that direction, so there would be views from the rooms at the front of the house, stepping outside, walking along the farm road, and from the garden. There would be no escape. To make it even worse, during night-time two of the visible turbines would have aviation lights, and this is a remote rural location with no artificial lighting.

61. The assessment blandly states that this does not reach the RVA “threshold”. If that is seriously suggested, perhaps a case could be shown which does reach such a “threshold”. This one property in our view renders the whole RVAA self-serving and not credible. We do note that the distance to the nearest turbine is 1.6km and that in the case of past applications made with much smaller turbines such a distance might well have been acceptable. This again reinforces our view that these proposed enormous turbines need very careful evaluation to enable well informed conclusions to be reached. We stress the point we raised in the LVIA section; that the EIA’s authors in this case have **systematically understated** the impacts these turbines will have, despite using their professional judgment.
62. It is noted that property P01 Wester Corsehope is even nearer the turbines at just over 1km. As stated, the property is currently unoccupied – but if the wind farm is constructed it never would again be suitable for renovation as either a holiday cottage or farm worker’s house. All the comments about property P02 apply, but even more so.
63. The next nearest property is Corsehope House P03. This is a substantial and attractive house, with a large garden, water features and a detached small cottage used by members of the family on a regular basis. There is no mention of this cottage in the RVAA. Here the turbines are viewed as a tight overlapping group up the minor valley. The turbines are at varying distances so appear to be different sizes, with nine in view. The nearest turbines appear huge (at 1.5km), and their rotating blades would inevitably draw the eye constantly. This would ruin the aspect from the garden, the driveway and approach to the house up the access road, and the view from some of the rooms – as well as from the cottage.

64. We will not attempt to do a further detailed examination of the whole RVAA but chose a few examples where the assessment requires challenging. The Neuk P12 and Crookston Old House P17 are two examples. The wire frames clearly show that all the turbines will be fully visible on the prominent hills to the west of the Gala Water. The view is very similar to Viewpoint 1, which has been discussed above in the LVIA section. The views from the Neuk would be unrestricted from the front rooms, as the house faces in that direction. Yet an attempt is made to insist that residents in this house and in Crookston Old House will look down the valley rather than at the horizon. Currently the latter is the dramatic view from both properties with a sweeping horizon receding over open moors to the Moorfoot Hills. That will be replaced with a line of towering turbines with constantly moving blades. There are a few trees around Crookston Old House, but they do not restrict the view from many parts of the garden including an obvious sitting area, nor from some of the rooms.
65. Crookston South Mains Steading G13 is to the east and adjacent to Crookston Old House. The communal garden area has the same view to the west, with a broken line of single mature and somewhat decrepit trees providing modest shelter. The assessment states that new planted trees will provide screening eventually. This should be noted as the trees in question are odd ornamentals or fruit trees and will never screen the view. It is yet another example of efforts throughout the EIA to downplay or ignore unacceptable impacts. It is accepted that views from the properties are mainly oblique – but there are views from some rooms and from garden areas with the view to the horizon currently being the overwhelming and extremely attractive feature. Viewpoint 1 shows how that would be changed.
66. Crookston House & Garden Flat P14. The wireframe shows that all the turbines will be visible across the valley, and the assessment admits the house currently has a magnificent view in that direction from its front and garden. Whilst accepting this, the assessment immediately turns to various reasons why this will be screened to some degree, or might be in the future by tree growth, and anyway other areas of the substantial grounds will not have views. There are several other properties or small groups that have similar assessments – all accepting that the impacts will be Major/ Moderate but also in every case explaining these findings away by one means or another – separation from the site, wide open views (despite the obvious intrusion of these turbines into such a view) or prominent features, but not of course intrusive as filtered by garden vegetation.

67. Reading the assessment, one is struck by how in each and every case the assessment downplays the impacts of the turbines, even in the most extreme examples, and how these assessments can easily be checked by looking at the montages or wireframes. These tell very different striking stories which render the assessments as being bland attempts to conceal the obvious adverse impact these turbines would have. Decision makers should concentrate on the visual evidence before them and give little weight to the EIA's written text. It significantly fails the test of objectivity.

### **Residential Amenity**

68. The Planning Statement summarises Residential Amenity in relation to SPP 2<sup>nd</sup> edn June 2014 and the SBC Policy ED9. The major areas requiring assessment are LVIA effects, noise, shadow flicker and private water supplies. Naturally, drawing on the conclusions in the RVAA and Noise sections of the EIA, the Planning Statement concludes that the requirements of these two policies in these areas have all been met.

69. The conclusions the Community Councils have drawn in this paper are in direct contradiction of the EIA conclusion, and do not need repeating. We urge decision makers to consider the evidence advanced and to conclude that the Greystone Knowe application must be refused consent to preserve the Residential Amenity of the houses in the area.

### **Planning**

70. The applicants present the argument that Greystone Knowe wind farm will make a valuable contribution to Scottish Government targets and should be granted consent on that basis. The Planning statement draws attention to the Climate Emergency declared by the Scottish Government, and also to the Scottish Energy Strategy (SES, discussed in more detail below) and the Onshore Wind Energy Policy Statement (December 2017). However, Scottish Ministers have made clear that pending the development of new planning policy through NPF4 the current policy provisions for the determination of wind farm applications remain as they are. The NPF4 Position Statement issued by the Chief Planner in December 2020 also specifically confirms that the terms of SPP2 and NPF3 continue to apply until such times as NPF4 is adopted by Scottish Ministers.

71. It therefore absolutely remains the case that each wind farm application must be considered on its merits according to its site and specifications. Planning policy is explicit that support for onshore wind is not unconditional whatever weight is attached to energy/climate policy. With a large number of onshore wind applications currently in progress through the consenting and planning systems, together with the very large number of consented but not yet constructed wind farms, the outcome of any single wind farm application is not material to the realisation of policy overall.
72. The Onshore draft Wind Policy Statement Refresh Consultation issued in October 2021 which has just closed is mainly about technical aspects, but it does ask for comments about the desirability of significantly increasing the target for onshore wind farms by 8GW to 12GW by 2030. The following paragraphs draw on part of Heriot Community Council's recent submission to the Consultation, demonstrating that such an increase is entirely unjustified in relation to Scottish targets. Christopher Ford, Civil and Environmental Engineering Department, University of Strathclyde undertook the research and analysis on which that paper is based. He also drafted large parts of the submitted paper.
73. Using a "whole system" approach the Scottish Government's target is to provide 50% of Scotland's overall energy consumption (or whole system energy demand) from renewable sources by 2030. Beyond that the Scottish Government wishes to reach net zero, implying all energy demand is to be met from low carbon sources by 2045. Scotland's daily whole system energy demand is approximately 12,083 MW/h in summer and 22,917 MW/h in winter with an annual average daily demand of 17,500 MW/h equivalent. The 2030 daily target is 6,042 MW/h in summer and 11,458 MW/h in winter with an annual average daily demand of 8,750 MW/h.
74. The first area for consideration of a whole system energy is existing and committed renewable energy. Onshore wind energy has an existing and committed capacity of 13,342 MW. If this is producing electricity at the rate the wind industry often claims (45% load factor) this would be producing 6,003 MW/h or 52.6TWh per year. This output figure represents 50% of Scotland's whole system energy demand in summer and 26% in winter. While this meets the Scottish Government's 2030 energy target (50% of all energy demand) in summer, it falls short of the target in winter. This existing and committed onshore wind energy can be achieved from existing sources without any additional locations for wind farms and therefore without additional unacceptable local environmental effects of the type described

above.

75. As well as the existing and committed onshore wind capacity Scotland expects to add 2,500 MW from the repowering of older and extensions to existing wind farms. These expected increases in Scotland's wind farm capacity, from repowering and extensions, can be added to the existing operational and consented fleet of onshore wind farms (13,342 MW). This will provide Scotland with an onshore wind energy fleet in 2030 of 17,842 MW, thereby meeting Scotland's renewable electricity target of "17GW of installed capacity in 2030" (SES-p35). All of this capacity can be provided in locations which have already been found to have acceptable levels of local environmental effects.
76. At a 45% load factor this would be producing a daily 8,029 MW/h or 70.3 TWh per year. This is sufficient to meet 35% of Scotland's whole-system energy demand in winter and 66% of summer demand. Over the full year this amounts to 46% of Scotland's whole system energy demand.
77. Scotland also has a long-established hydro-electric generation sector with an installed capacity of 1,650MW (excluding pumped-storage). Operating at a load factor of 37.5% this produces 620 MW/h or 5.4 TWh per year (Statista 2021). Combined with the existing operational, consented, repowering and site extension onshore wind farm fleet this is sufficient for 8,649 MW/h throughout the year. The renewable energy capacity, either currently operational or committed, provides 48.5% of Scotland's all energy demand by 2030, almost meeting all the Scottish Government's target of 50% Scotland's whole system energy demand by 2030.

As well as onshore resources Scotland also has significant offshore wind energy.

### **Scottish Offshore Wind Energy**

78. Offshore wind offers several benefits over onshore wind farms. Firstly, the energy produced is greater per generating unit offshore than onshore. Offshore winds are stronger and more consistent than onshore (Global Wind Atlas 2021). Unlike onshore winds there is no turbulence created by landform or tree cover. Consequently, offshore wind farms have higher load factors than onshore wind farms. Current operational offshore wind farms have a track record of producing load factors of 60% (Humber Gateway OfWF, Westernmost Rough OfWF). A second benefit of offshore wind farms is the lower environmental impact. The siting of wind turbines offshore avoids the landscape and visual amenity impacts

which unavoidably arises with onshore wind farms.

79. Scottish offshore wind energy has a current operational capacity of 892 MW with 2,948 MW currently under construction. A further 1,942 MW is consented awaiting construction while 4,450 MW is planned and committed. This provides a combined total of 10,232 MW of operational and committed pipeline of offshore wind capacity in Scottish waters. The Scottish Government agency responsible for seabed leasing has just completed its further auction round. The bids awarded will provide a further 25,000 MW of offshore wind capacity to be delivered by 2030. Thus by 2030 Scotland will likely have an offshore wind energy capacity of approximately 35,000 MW (CES 2021 updated by the latest auction round). The Scottish offshore wind sector is expected to grow at a similar or faster rate in the 2030s and 2040s. Overall Scotland has an abundant resource of offshore wind energy.
80. The SES recognises the considerable contribution that offshore wind energy can make to Scotland. Scotland's offshore wind energy target now at 35 GW capacity operational by 2030, and 60% offshore wind load factor will provide approximately 21,000 MW/h. This means that offshore wind will have sufficient capacity to surpass Scotland's 2030 energy target, both in summer and in winter. On an annual output basis, the potential 2030 offshore wind energy capacity not only far exceeds the Scottish Government 2030 target in summer, but it is also actually capable of satisfying Scotland's whole system energy requirement with considerable excess (21,000 MW/h output compared to the summer whole system energy requirement of 12,083 MW/h). In wintertime offshore wind energy is capable of providing 92% of Scotland's whole system energy requirement. Again, that figure is far in excess of the Scottish Government's 2030 target. Averaged over the year the expected onshore wind capacity will exceed Scotland's whole system energy requirement by 20%. This is far, far more than the Scottish Government's 2030 target.
81. Indications from the pricing of offshore wind farms in the rest of the UK and Scotland's Round 4 Seabed Leasing Auction suggests the offshore wind target, of 35 GW capacity by 2030, can comfortably be met without further subsidy. So, the offshore wind energy provision is expected to comfortably meet Scotland's whole system energy demand. It does this without creating additional local environmental effects, such as the landscape effects created by all onshore wind farm schemes.
82. Combining the current onshore wind resource, the existing hydro-electric capacity and the expected offshore wind energy development Scotland has substantial

renewable energy resources. The hydro-electric and offshore wind energy have stable levels of output. There is however some doubt about the load factor of onshore wind energy. A cautious approach to this is to apply a load factor of 35%, as this appears to be the level generally obtained in practice. Applying this load factor to the expected onshore wind fleet of 17,842 MW provides 6,245 MW/h annually. Combined with the energy output from hydroelectric (619 MW/h) and expected offshore wind (21,000 MW/h) this provides Scotland with a deliverable renewable energy of 27,864 MW/h by 2030. This not only surpasses the 2030 renewables target for both summer and winter, but it also exceeds Scotland's whole system average annual demand (17,500 MW/h) for the net zero target by an extraordinary 60%. Given the expectation that Scotland's Offshore wind energy will continue development after reaching 35 GW in 2030, Scotland has abundant renewable energy resources moving to 2050.

83. Scotland therefore has the capability to meet its net zero whole system energy demand from committed and planned resources, without the need to add onshore wind farms in new locations and without the need for creating additional local environmental effects. It follows, therefore, that Scotland does not need new renewable capacity creating additional onshore local environmental effects. What Scotland needs is:

- (i) to deliver its consented and scheduled renewable capacity, especially offshore but also including repowering,
- (ii) long term energy storage so that the summer energy production surpluses can be deployed in the winter and to cover periods when wind energy is not available,
- (iii) the technologies to convert its scheduled electricity production to match its whole system demand.
- (iv) Continued vigorous encouragement and political support for offshore wind development.

New onshore wind farm developments are not required to meet the Scottish targets.

A very recent summary of Constraint Payments in Scotland reinforces the points made above. The Paper has been prepared by Renewable Energy Foundation (REF) and is attached in full as a separate document for reference. Relevant extracts to this paper are reproduced below in italics.

## Constraint Payments to Wind Power in 2020 and 2021

84. *Large volumes of wind energy are being discarded in Scotland in order to preserve grid stability, with a fleet average of over 13% of generation constrained off in the years 2015 to 2021, inclusive, with a high of 19% of generation in 2020. Some wind farms have been discarding between 20% and 50% of their output, while being rewarded with generous constraint payments from the electricity consumer for doing so. The reductions in environmental benefits are not given adequate weight in the planning system, where the low marginal benefit of additional wind capacity appears to be poorly understood. This blog offers detailed data on the volumes of wind energy constrained off at a fleet level in Scotland between 2010 and 2021, and for every individual wind farm in 2020 and 2021.*

85. *Wind turbine generation has been weak in 2021 due to low wind conditions, with total (onshore and offshore) output reduced by about 14% in 2021 as compared to 2020 (61 TWh estimated in 2021 as compared to 72 TWh in 2020). Onshore wind output has been the most severely affected, with a reduction of 20% in 2021 (27 TWh estimated) as compared to 2020 (34 TWh). This has had a significant effect on the volumes of wind energy constrained off the system, with a corresponding and welcome reduction in the total cost to consumers.*

86. *In 2020 constraint payments to onshore wind in Scotland amounted to 3,460 GWh (at a cost of £243m), whereas in 2021 this was 1,783 GWh (at a cost of £107m), a reduction of 48% by volume of energy*

*... the average load factor of Scottish onshore wind farms has fallen from 26.7% in 2020 to 22.1% in 2021. This is the second lowest fleet load factor in 20 years, the lowest being 21.5% in 2010.*

87. *... the reduction in constraint volumes brings into sharp focus the low marginal benefit of adding further wind capacity in Scotland. A reduction in wind power output, such as that in 2020, reduces constraint payments. Therefore, conversely, any new proposal for wind power in Scotland, which increases potential output, must be expected to increase constraints. Additional capacity therefore has a high probability of some part of its own output being constrained off, reducing the global environmental benefits it can claim to offset local environmental harms. This matter should obviously be given close scrutiny in the planning balance by decision makers.*

*However, and as far as we are aware, the Scottish Government has not issued formal advice requiring Reporters to take the matter into account.*

88. *The headline findings from these tables are stark. On an annual basis since 2015, when the wind fleet reached substantial levels, Scotland has been discarding around 13% of all wind energy that it could have generated. This figure rose to a high of 19% in 2020, when demand fell due to lockdown and other public health measures, before falling back to 13% in 2021, a low wind year with recovering levels of consumer demand.*
89. *It follows that decision makers in the planning system should expect that if a wind farm currently applying for consent has not taken the potential for constraints into account, it is likely to have over-estimated its actual benefits of generation by between 10% and 20%, figures that could be crucial in determining the planning balance given the significant adverse local, and even regional environmental impact of many wind farms, on wildlife and the landscape and visual quality of unspoiled wildland areas.*
90. *However, the results on a site-by-site basis indicate that a general figure may not give an adequate insight into the scale of potential losses. Some wind farms in 2020 discarded extremely high fractions of their potential output. Corriegarh, for example, lost about 51% of its output to constraints, with other notable sites being Strathy North (48%), Blaraidh (47%), and Farr (39%). Even some of the largest, high-profile sites in lowland areas had to discard substantial proportions of their output, such as Whitelee (31%), and Fallago Rig (27%). Strikingly, these proportions remained very high even in 2021 and in spite of the facts of weaker winds and higher demand. In this year, Dorenell discarded 35% of its output, and Strathy North 28%, Bhlaraidh 24%, Farr 22%, Whitelee 17%, and Fallago Rig 15%.*
91. The output constraints reinforce very clearly the conclusion in paragraph 83 that Scotland does not need further onshore wind farms, which will only exacerbate the problem of Grid capacity between Scotland and the rest of the UK. It should be noted that both Whitelee and Fallago Rig are in the area south of the Central Belt, with Fallago Rig being close enough to Greystone Knowe to be considered in the cumulative assessment.
92. It is therefore essential to consider the environmental impacts that new wind farms such as Greystone Knowe would inevitably create, and if they are judged to be serious, then this must be the determining factor of the planning decision.

## Overall Planning Conclusions

93. SPP2 June 2014 is still the relevant policy to judge whether various impacts should be considered; Section 169 sets out the various matters for consideration in any application.

### Amongst other bullet points listed these are relevant:

- net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities;
- the scale of contribution to renewable energy generation targets;
- effect on greenhouse gas emissions;
- cumulative impacts – planning authorities should be clear about likely cumulative impacts arising from all of the considerations below, recognising that in some areas the cumulative impact of existing and consented energy development may limit the capacity for further development;
- impacts on communities and individual dwellings, including visual impact, residential amenity, noise and shadow flicker;

And

- landscape and visual impacts, including effects on wild land.
- Impacts on road traffic.

The key Local Development Plan policy for this development is SBC Policy ED9 Renewable Energy Development which echoes SPP2, stating that SBC will support proposals for large scale renewable energy schemes where there are not significant and cumulative impacts on the environment and local communities. The two policies agree on the relevant tests.

94. These submissions have therefore demonstrated quite clearly that the Greystone Knowe scheme will add nothing to reaching Scottish targets and that its economic benefits will be negligible.

95. Greystone Knowe's various adverse effects will include severe impacts on local communities and especially some individual dwellings through visual impacts and noise. It will have widespread adverse visual and noise impacts on residential and recreational amenity.

96. It will also have a major impact on the local landscape partly because its siting and turbine heights are contrary to the guidance of the Ironside Farrar Landscape Capacity Study, and therefore it fails to conform to local policy. It would have widespread visual impacts on many different receptors through the sheer height of the turbines.

97. The road access via the Old Stage Road is totally unsuitable and the proposed junction with the site's access tracks could hardly be placed in a worse position being right on the outskirts of Fountainhall.

98. Greystone Knowe clearly fails the tests set out in Scottish Planning Policy, and so also those in SBC Policy ED9. It cannot be claimed that it might have any offsetting benefit through adding to Scottish renewable targets, as demonstrated above. It therefore fails the acceptability tests set out in both policies.

The Community Councils **object** to the Greystone Knowe scheme and submit that it should be refused s36 consent and deemed planning permission.

Attached Paper

**Constraint Payments to Wind Power in 2020 and 2021**

[ref.org.uk/ref-blog/371-constraint-payments-to-wind-power-in-2020-and-2021](https://ref.org.uk/ref-blog/371-constraint-payments-to-wind-power-in-2020-and-2021)