Scope of EIA

Section 3 sets out the Scope of the EIA.

We refer to The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations (2017), (hereafter referred to as 'the Act') where it requires; *a description of the likely significant effects of the development on the environment* (para 5.2.b)

We note that it is usual in wind farm applications to only consider the EIA of the site. We argue that there will be significant environmental impacts outside the site as a result of this project. For example, there has been much comment recently about the environmental damage caused by the mining of rare earths, particularly in China and in the Congo where the majority of rare earths are mined. The poor working conditions of the rare earth miners are well documented and publicised. It is estimated that about 100 tonnes of rare earths will be required in the turbines of this development, principally in the turbine magnets. It is estimated that about a hundred thousand tonnes of ore will have to be mined and processed to manufacture the turbine magnets for this project. It must be expected then that there will be a significant environmental impact due to the mining and processing of those rare earths.

As legal backing for this argument, we note the recent Supreme Court decision *R (on the application of Finch on behalf of the Weald Action Group) (Appellant) v Surrey County Council and others (Respondents)* (20th June 2024). The Judgement examined whether the scope of the environment to be assessed should be confined to the site (in this case, an oil well in Surrey) or more widely cast. In this respect, Para 93 and 94 of the Judgement are worth quoting in full.

93. It is worth emphasising that the EIA Directive does not impose any geographical limit on the scope of the environmental effects of a project which must be identified, described and assessed when an EIA is required. In principle, all likely significant effects of the project must be assessed, irrespective of where (or when) those effects will be generated or felt. There is no justification for limiting the scope of the assessment to effects which are expected to occur at or near the site of the project. The fact that an environmental impact will occur or have its immediate source at a location away from the project site is not a reason to exclude it from assessment. There is no principle that, if environmental harm is exported, it may be ignored.

94. That is no less true if the effect will be produced or felt outside the territorial jurisdiction of the state (here, the UK) whose national law requires the EIA to be carried out. If there were otherwise any doubt about this, it is removed by the express inclusion in Annex IV, para 5, of "transboundary" effects in the description of the likely significant effects on the factors specified in article 3(1) which should be covered (see para 83 above).

It should be noted that in para 94, reference it made Annex IV of the original EU EIA Directive (2017). However, it is clear that the Act referenced above is a derivative of the EU EIA Directive and Part 10 of the Act can replace Annex IV of the Directive in para 94 above.

We also refer to an email from Nicola Ferguson of ECU on 17th October 2023 who stated that,
You have also inquired as to what is meant by "the environment". Scottish Ministers consider that the EIA Regulations provide that the consideration of likely significant effects, both direct and indirect, and in cumulation with other existing and approved development, in the EIA report is not limited to the site itself but must be considered as widely as is necessary in consideration of the size and design of the development which is proposed and the environmental sensitivity of geographical areas likely to be affected by it.

The word "significant" is obviously of importance here. If the environmental impact of some particular effect is not considered to be significant, should it be included in the EIA? The answer is given in para 152 of the Supreme Court Judgement cited above:

152. ….The fact (if it be the fact) that information will have no influence on whether the project is permitted to proceed does not make it pointless to obtain and assess the information. It remains essential to ensure that a project which is likely to have significant adverse effects on the environment is authorised with full knowledge of these consequences.

In other words, the applicant must provide any and all information on any environmental impact, wherever and whenever it occurs, so that the consenting authority can decide on whether it is significant or not, and make a judgement in full possession of all the facts.

The legal requirement as set out above is quite clear. Given that it is also clear that this aligns with Invenergy's Sustainability Policy, we look forward to seeing a full and detailed EIAR for the world-wide environmental effects of this project.

Landscape and Visual Amenity

In the Place Plan for this Community Council area, 'Landscape' is considered to be the most valuable asset in terms of natural capital. This aligns with the Place Plans of surrounding Community Councils. The landscape is rural and consists mainly of gently rolling hills which are either hill farms (sheep and cattle) or forestry. The forestry is both commercial sitka spruce monoculture and mixed native broadleaf. There are two significant nature conservation projects in the area covering about 2000 hectares in total.

The community is solidly opposed to changes in the landscape which would change it drastically into an industrial energy park.

We refer to the Ironside Farar study *Update of Wind Energy Landscape Capacity and Cumulative Impact Study* conducted for Scottish Borders Council and published in 2016. This study referred to this section of the Cheviots as being, "...*a landscape that is both sensitive to wind turbine development and has a high value, where only a slight level of change can be accommodated without significantly affecting any of the key defining criteria"*

The study concluded that the capacity of this landscape to turbines above 120m in height was 'low'. While the average height of turbines was much lower in 2016 when the study was published, that does not mean that the proposed turbines which are twice this height are any more

acceptable. The fact that there has been no wind farm development in this area of the Cheviots in the intervening period means that this assessment remains as valid today as it was in 2016.

3.1.11 Topics to be scoped out, but which should not be scoped out.

Socio economy

It is stated that local socio-economics will be scoped out. It should be noted that NPF4 Policy 11.c states that "*Development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities*". This means that the consenting authority will have to consider local socio-economics if they are to support the application. They cannot make an assessment on whether socio-economic benefits are "maximised" unless they are considered in the application. This cannot be 'Scoped out'.

In Section 14.3, however, it is stated that a standalone socio-economics statement will be submitted. If socio economy is being scoped out, why is this topic being addressed in a standalone document? Section 14.3.2 states that "*The economic effects of the Proposed Development are expected to be beneficial*." and nowhere in what is essentially the scope of this standalone statement (Sections 14.3.2-3), is it stated how any negative economic impact will be determined. It should be remembered that it is the ***net*** economic impact that must be assessed and so any negative economic impact must be assessed as well.

The socio economics of this area must be considered within the context of its own unique set of circumstances and should not be simply assumed to accord statistically with, "...*socio-economic effects undertaken as part of the EIA process for other wind farm developments in Scotland and elsewhere in the UK*." This approach completely discounts any wind farm applications which were not approved because the net negative socio economic impact was considered too great. A balanced and objective assessment for this project needs to be done.

Tourism

The effects of the project on tourism in the area is discounted in Section 14.3.4 and it is stated that this will be considered as part of the LVIA and not as a standalone subject.

In this area, the main industries are farming and forestry, both of which depend on subsidy from the Scottish Government for viability. The main employment is in farming (there is almost no local employment in forestry) and there is a widespread effort to diversify into tourism in order to supplement income.

Section 14.3.4 states that, *"Research, such as that by BiGGAR Economics suggests that there is no evidence that the presence of wind farm developments have an adverse effect on the tourism sector in Scotland…*" The document cites the study "Wind Farms and Tourism Trends in Scotland: Evidence from 44 Wind Farms" by BiGGAR Economics (2021).

That study has not been peer reviewed. The study was initially published in 2016 but the methodology used in the study was heavily criticized in 2016, in particular by Douglas Wynn *"Critical Appraisal of BiGGAR Economics Limited's Research Report"* (John Muir Trust, 2016).

The study was 'updated' to include responses to some of these criticisms in 2017. David Gordon published another 46 page detailed criticism of the study in, *"Wind farms and tourism in Scotland: A review with a focus on mountaineering and landscape"* (Mountaineering Scotland, November 2017), in which he noted that there were still substantial flaws in the methodology .

When BiGGAR Economics updated their report in 2021, (*"Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms")* lead author Graeme Blackett admitted (verbal evidence, Fawside wind farm PLI July 1st 2022) that there was essentially no change in the methodology from their 2017 report.

Meanwhile, there are other studies that <u>have</u> been peer reviewed, such as that by G. Riddington et al, *"Assessing the Economic Impact of Wind Farms on Tourism in Scotland: GIS, Surveys and Policy Outcomes"* International Journal of Tourism Research, Vol. 12, pp 236-252, 2010. This showed that there <u>is</u> a significant negative impact on tourism by wind farms.

BiGGAR Economics claims that there is no bias in the data set of wind farms. But the data set <u>is</u> biased as all the wind farms selected had all been consented and thus had been through the planning process. Wind farms which were refused because they were placed in particularly sensitive landscapes, where tourism would certainly have been negatively impacted, were therefore not included.

This means the data set is skewed towards wind farms which will not affect tourism significantly. In fact, if it has any merit, the BiGGAR Economics study is not a study of the effect of wind farms on tourism. It is a study to show whether the planning system in Scotland is successful in discriminating against wind farm proposals which would be damaging to tourism by being placed in sensitive landscapes.

It is not correct then to conclude that (14.3.4) "...*that there is no evidence that the presence of wind farm developments have an adverse effect on the tourism sector in Scotland…"* and we urge that this project be considered on its own merits in this regard, as part of the EIAR.

<u>Golden Eagles</u>

There is growing evidence that wind farms are a danger to large raptors like Golden Eagles - firstly because they pose a collision danger to the birds and secondly because they deny habitat in which they will hunt. It is claimed that the forestation of the area denies the area as a hunting habitat to the Golden Eagles. However, it is well documented that Golden Eagles will seek prey in the margins of forests in clearings and along rides, which are the preferred habitat for many prey species. (See, for example, Knight, R.L. & Erickson, A.W. 1978. *Marmots as a food source of Golden Eagles along the Columbia River*).

An application for Cloghercor wind farm in Ireland was refused in 2024 due to concerns of "significant risk of disturbance and displacement" of Golden Eagles.

In 2023 Bernagues wind farm, near Nîmes in France, was ordered to be removed due to the threat it posed to Golden Eagles. It is clear that this topic should be fully and objectively examined without pre-judgements as made as in the Report. Note that this wind farm was in a heavily forested area.

References are made to the South of Scotland Golden Eagle Project, who for a number of years attempted to restore the Golden Eagle population in the Borders of Scotland. It should be noted that this organisation is being replaced by the charity Restoring Upland Nature, who are taking over the remit of the Golden Eagle project.

It should be noted that there has been a long history of Golden Eagles nesting within a few kilometres of the site and they are certainly seen flying in this area, so the statement at 7.3.30 "*it would be safe to conclude that the Site itself would not be an important part of such a range…*" is simply not correct.

Layout

Turbines 10 and 11 will be visible from Hermitage Castle, the finest example of a medieval castle in Scotland and a major tourist attraction. The landscape within which the castle sits is very sensitive to modern energy infrastructure. Turbine 40 is right on top of the Wheel Causeway, which is a continuation of the Scheduled Monument SM3424. This is an ancient road which is possibly Roman. It is a recognised footpath. Turbines 33 and 36 would also be unacceptably close to the Wheel Causeway.

All the turbines on the Northern edge of the site will be visible from Bonchester Bridge. This will add to the cumulative effect of the turbines from the proposed Liddesdale wind farm (ECU00004833).

There has been no attempt to reduce the impact on the landscape by moving turbines away from peaks and ridges where their visibility will be maximised in the surrounding area.

Nine Stanes Rig is a Scheduled Monument (SM979) and a number of turbines will be visible on the horizon to the North East. This monument was described by A. Thom in his book "Megalithic Sites in Britain" (Clarendon Press, 1969) as being archaeoastronomically aligned and so the horizon landscape is particularly sensitive for this monument and should remain unencumbered.

Roads

In Section 10 it is stated that HGVs will travel from the A6088 to the North and so onto the B6357. Vehicles will enter the site from several access points off the B6357. They will return using the same route. We note that there is no room for two way traffic on the B6357 near the junction with the A6088. There should be one way traffic only on this section of road. Preferably this section of road should be avoided altogether as there are no passing places on this section of road and local traffic will be seriously inconvenienced by the weight of heavy goods traffic on this road.

The roads in this area are unsuitable given the amount of traffic, bearing in mind that the Liddesdale wind farm and the Millmore wind farm would be being constructed at the same time (if consented). Cumulatively there would be too much traffic through Bonchester Bridge, particularly over the bridge at Bonchester Bridge, also through Chesters round the tight corner there.

The route for abnormal load movements is not detailed in the Report. We would expect a detailed TMP to be presented with application, including for abnormal load movements.

Residential Visual Amenity Assessments

We note that Table 4: "*Settlements and Residential Properties within 45 km Study Area with Theoretical Views of the Proposed Development*" does not include a number of properties that would be within a 2km radius of a turbine as plotted in Figure 1.2 and so qualify for a RVAA. The list should include Singdean, Wormscleuch, Saughtree Grain, Myerdykes Farm, Myerdykes Cottage, Fairloans, Hartwell, Thorlieshope Farm Cottage, Saughtree Station House, Saughtree Manse and Daleside Cottage.

Some of these properties have been told that the RVAA will be done as a desktop exercise. In our view the RVAA cannot be done as a desktop exercise and must be visited in person so that the methodology as detailed in Sections 4.10, 4.11 and 4.12 of the cited *Landscape Institute (2019). Technical Guidance Note 02/19 Residential Visual Amenity* can be done properly. We expect actual site visits to be arranged with the above listed properties.

Viewpoints to add

There are currently only two proposed viewpoints in the area of this Community Council, which is a co-host to this wind farm and so we need more viewpoints to better appreciate the impact on the landscape for this community. The following additional viewpoints are requested.

Arnton Fell 352436,595085
B6357 Kielder road Junction 356106,596730
Nine Stanes Rig 351756,597300
Liddesdale infoboard 354301,594495

Battery Energy Storage System

It is noted at 1.3.3 that a battery energy storage system is to be installed. The location and details of the battery storage system are not given, though Invenergy have stated that the BESS facility will have a storage capacity of 200 MWh. We have a number of comments on this in regards to the well known significant likelihood of a spontaneous fire occurring in the BESS.

First is that the fumes from a fire are poisonous so there needs to be two completely separate access roads to the BESS so staff and fire fighters will not be overcome by fumes by being restricted to just one approach road where they might be overcome by fumes.

Secondly, the National Fire Chiefs Council recommends that in the event of fire, or the threat of fire, each BESS container should be sprayed with at least 1900 litres of water per minute for at least two hours to keep the temperature of the BESS container below thermal runaway.

For a BESS of 200 MWh capacity, the facility would consist of 200 containers. In the event of a fire, it would require 380,000 litres per minute for 120 minutes, or 46,000 tonnes of water. This would need to be stored in a suitable bund. This, and the two approach routes, will constrain the location of the BESS

Thirdly, the run-off from the fire of all this water would cause a major environmental catastrophe as the water, laden with poisonous lithium salts, would run into the water system.

We will expect the construction and location of the BESS to be fully detailed in the application and in the EIA so that SEPA and the Fire Service can comment suitably upon it.