

Memo

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SECTION 36 : ERECTION OF 35 NO. WIND TURBINES MAXIMUM TIP HEIGHT 149M, AND ASSOCIATED INFRASTRUCTURE, NORTH LOWTHERS ENERGY INITIATIVE (NLEI), NEAR WANLOCKHEAD

COMMENTS FROM COUNCIL LANDSCAPE ARCHITECT

The following comments are based on observation, council policies and guidance, and the applicant's Environmental Statement (April 2017).

Site visits have been undertaken for NLEI and Harryburn Windfarms on 5, 11, 12 July, 18, 26 October 2017 in reasonable conditions of visibility.

Further site work remains to be done in the Crawick Valley regarding access and other infrastructure, but it is felt that any landscape issues arising here could be addressed through conditions and would not change the recommendation.

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1 Landscape recommendation and key issues

1.1 Recommendation

1.1.1 Recommendation; It is recommended that the Council objects to North Lowthers Energy Initiative (NLEI) Windfarm.

1.1.2 Key issues overview; NLEI Windfarm would give rise to a number of significant landscape and visual effects in itself, cumulatively with the emerging wind farm development in Upper Nithsdale and associated with Clyde Windfarm, and potentially with the in-planning Harryburn scheme. The scale of the development and the context of the proposals mean that the issues arising from NLEI are complex in relation to sensitive Dumfries and Galloway (DG) receptors, and extend across the border with wider regional concerns.

1.1.3 Issues of principle; There are two issues of principle in relation to the NLEI development, concerning the Lowther Hills, and the pattern of wind farm development:

The Lowther Hills. NLEI would in itself, and potentially in addition to in-planning Harryburn Windfarm, impact on the landscape character and scenery of a regionally distinctive and valued landscape area, the Lowther Hills. NLEI would occupy a significant tract of the Lowther Hill range. The Lowthers are an area of common interest extending between DG and South Lanarkshire (SL), and they are appreciated as a whole from the accessible and popular viewpoints of the central ridgeline of Lowther Hill (including Green Lowther and East Mount Lowther); and in parts from the major transport corridors to the east and west of the hills, from the iconic passes and many tracks through the hills, from the towns and villages around their edges, and from the coupled former mining villages of Wanlockhead and Leadhills at their heart. The Lowthers are a notably scenic and highly valued landscape, recognised by the local landscape designations of the Thornhill Uplands Regional Scenic Area (RSA) in DG, and in SL by the Special Landscape Area (SLA) of Leadhills. The proposals would detract from a number of the defining qualities of these formal landscape designations; with direct effects on the RSA over an extensive area, and on important RSA viewpoints.

Wind farm pattern. NLEI would be at odds with an emerging pattern of wind farm development associated with Upper Nithsdale and east of the River Clyde. As set out above, the Lowthers remain a tract of distinctive landscape in the wider context of the Southern Uplands. The hills represent an important strategic gap in the development pattern; they provide contrasting character, and respite in views, and along routes. NLEI would extend development in to this area and potentially in combination with Harryburn extend an arc of wind turbines between the Clyde and Nith catchments. The wind farm pattern is legible and can be appreciated in more elevated views such as from Lowther Hill; and the other high SUW passes at Glengaber, above Coghead, and at Whing Head.

1.1.4 Design issues, overall scheme; Due to the extensive and composite nature of the wind farm footprint, which occupies a sensitive upland landscape across the watersheds of several sensitive upper valley and glen landscapes, the impacts and design issues of the NLEI scheme as a whole, and in its various parts are numerous and complex. Some landscape and visual effects are significant, others serious, and taken together representing a considerable concern to the DG landscape resource, and the benefits it offers residents and visitors.

NLEI Windfarm would have significant local effects on the central area of the Lowther Hills, and the historic mining village of Wanlockhead (and its close neighbour Leadhills). The scheme overall would detract from:

- *The dramatic upland backdrop and wider setting of Wanlockhead, as appreciated from Lowther Hill, and as part of the scenic routes and passes through the hills.* The sense of remoteness and special local distinctiveness of Wanlockhead (and Leadhills) is appreciated in views by SUW and other hill walkers, and by visitors to the villages along the sinuous Mennock Pass, and other approaches. These qualities would be diminished and disrupted by the presence of turbines and blade flick skylining along parts of the routes, and in the wider landscape setting of the villages.
- *Panoramic views from Lowther Hill and East Mount Lowther.* Lowther Hill is the highest point on the SUW, and the ascent, descent and views from here have particular value and sensitivity to change due to that status. It is also one of the key summit viewpoints taking in the Thornhill Uplands RSA. The existing focus in the views are Wanlockhead and the Mennock Valley at short range; with Cairn Table, Tinto Hill, and Cairnkinna the neighbouring regional summits. On East Mount Lowther, there is a promoted viewpoint with a view-finder, with exceptional longer range views from the Lake District to the Paps of Jura. NLEI would occupy the mid ground of these views, and detract from them.
- *NLEI does not present a coherent wind farm design from Lowther Hill.* The wind farm appears as a number of unrelated groups of turbines, widely separated, due to the large size and required wide spacing of the turbines; and which do not have a rational fit with the underlying landscape, or with each other. Turbines 32-35 are especially problematic in this respect, and occupy a disproportionate amount of the panorama.
- *The SUW.* NLEI would dominate the experience of walking and views from the Cloud Hill to Lowther Hill stretch of the SUW. This stretch entails more than a day's walking in terms of the long distance route, but also the high point of Lowther Hill and some of the most striking scenery encountered. Turbine groups would impact on different stretches of the SUW as it approaches and crosses the Lowthers. See also *Panoramic views from Lowther Hill*, above, and *SUW, Cog Valley*, 1.1.5.
- *Thornhill Uplands RSA.* The Lowthers represent a comparatively rugged and scenic tract of hills compared to surroundings, and are an important component of the Thornhill Uplands RSA: '*...where characteristics of landscape type are most strongly represented, including particularly strong sculptural relief ...and where landscape types are scenically juxtaposed with deep, steep sided valleys*'; Turbines 2-14, 17-21, and 32-35 lie within the RSA; these and the scheme as a whole gives rise to significant effects on the special / designated qualities.

1.1.5 Design issues, specific turbine groups and potential mitigation through design;

Recognising the issues of principle (1.1.3), as well as effects arising from the wind farm as a whole (1.1.4), there are a number of specific design issues that would arise from particular groups of turbines, and infrastructural elements. These should be designed out of the scheme, such that any scheme going forwards is as good as it can be in siting and design terms. The following sets these local design issues out:

- *Upper Nithsdale.* NLEI turbine groups 1-9, 10-14, and in some circumstances other turbines (Ts 17, 18, 19), would impact on the skyline of Upper Nithsdale, detracting from the scale and scenery of the distinctive Lowther Hills backdrop, which is an important feature in views from the valley. It is considered that the siting of these turbines is particularly inappropriate in relation to sensitive visual receptors, and that such effects must be avoided. With respect to the receiving landscape the turbines are out of scale with the valley edge. However, resizing alone would not address the cumulative issue of turbines surrounding the valley and it is considered that these turbines should be removed or re-sited substantially beyond the valley view-shed.

- Those most affected would include: residents of Kelloholm and the dispersed properties to the southwest valley side and over Auchentaggart Moor; SUW walkers crossing the valley from the west, and visitors to Sanquhar Golf Course and Crawick Multiverse.
- These effects would be cumulative with the existing and consented schemes across the valley, and would undermine the respite and contrast offered by this undeveloped side of the valley to wind farm development.
- *The Mennock Pass.* The southern array of the NLEI scheme, turbines 10-14, would impact on the scenery and character of the Mennock Pass. It is considered that the siting of these turbines is particularly inappropriate in design terms and sensitive landscape receptors, and that such effects must be avoided through alternative design and / or removal / re-siting beyond the view-shed of the pass. The turbines would:
 - Occupy parts of the backdrop skyline forming the immediate setting of the pass, overwhelming the scale of the hills and more intimate character of the valley, and disturbing to the visual amenity and scenery.
 - Be incongruous and an unwelcome surprise in the valley's unfolding views, detracting from the sequential experience of travelling along the B797, and the scale and drama of the sinuous pass;
 - Detract from views from the popular beauty spot (picnic and camping area) by the river.
 - Detract from the wider Lowthers setting of the pass, and of neighbouring Glendyne, the contribution the valleys make to the visual composition in the wider scenery, appreciated in views from Auchentaggart Moor and across Upper Nithsdale.
- *Views from Wanlockhead and the Wanlockwater Valley.* The rotors and blades of NLEI turbines 20-30, would appear above the edge of the Wanlockwater Valley in views from Wanlockhead, and its approaches along the SUW. The turbines would detract from the focus of the village at the head of its valley setting, and be incongruous to the locally distinctive character and strong sense of place. Blade flick would be disturbing; and it is considered that this is an avoidable effect that could be designed out through reducing turbine height and / or re-siting.
- *SUW, Cog Valley.* Turbine groups 2-6 and 16-20 would impact on the SUW as it crosses the remote interior Cog and Wanlockwater Valleys: deeply incised and characterised by ridges and spurs, with partial afforestation, the landform of these valleys typically rises 150-200m, and would be overwhelmed by the 149m turbines. These turbines are out of scale with the receiving landscape and require to be reduced in height.
- *SUW, Glengaber pass.* The passes at Glengaber (and above Coghead) would take in much of the wider development pattern. Walkers crossing Glengaber pass would experience NLEI development at short range on three sides; and with in-planning Harryburn a fourth. Turbines 19-21 would be overwhelming due to the proximity and turbine height. These turbines are out of scale and require both reduced in height and to be set back from the SUW.
- *Crawick Valley.* Turbines 1-3 and the infrastructure of access B , track and construction compound 2 would impact on the scenery and character of the Crawick Valley. It is considered that these effects are avoidable. Increasing set back from the valley, and setting further down the slope in to the Cog Valley, or reducing turbine size, could avoid the turbine scale issue. The infrastructural elements could be better integrated in to the landscape through further consideration of the route line, woodland planting and detail design of the access point.
 - NLEI turbines 1-3 would be overwhelming in scale and impact on the local scenery and character of the Crawick Valley.
 - Access point B (off the B740) and track, and construction compound 2, would be prominent on the shoulder of Dod Hill, and would detract from the character and scenic quality of the Crawick Valley.

1.1.6 Grounds for refusal; To summarise, the grounds for refusing NLEI Windfarm as a whole or in its parts are;

1. *Wind farm pattern:* NLEI would occupy an existing strategic *gap* in the pattern of wind farm development.
2. *The Lowther Hills:* NLEI would compromise a tract of open ground that contributes to the integrity of the Lowthers, and the value of the hills as a recreational and scenic asset.
3. *Wind farm design:* NLEI does not make a coherent wind farm image from key viewpoints.
4. *Panoramic views from Lowther Hill, and East Mount Lowther:* NLEI would detract from the quality of these high status viewpoints.
5. *The Mennock Pass:* NLEI turbines 10-14 would occupy the backdrop skyline, forming the immediate upland setting of the central section of the sinuous Mennock Pass, and the wider setting in views from Upper Nithsdale.
6. *Wanlockhead (and Leadhills) historic mining villages:* NLEI would diminish the scale, drama and distinctiveness of the Lowther Hills setting, and sense of remoteness the village(s) retain.
7. *Southern Upland Way:* NLEI would dominate the experience of walking and views from the Whing Head to Lowther Hill stretch of the SUW.
8. *Upper Nithsdale:* NLEI turbines 1-14 would occupy the skyline forming the wider upland setting of Upper Nithsdale between Mennock and Kelloholm.
9. *Thornhill Uplands RSA:* NLEI would adversely influence the northern section of the Thornhill Uplands RSA, and the effects would be sufficient to compromise the special qualities of the designated area.
10. *Crawick Valley:* NLEI turbines 1-3 would be overwhelming skyline features above a local area of the Crawick Valley between Spoth and Corsebank, and infrastructural elements of access point and track and construction compound 2 would also be detractors.

1.2 DGC summary of significant adverse issues;

It is judged that the following adverse effects found in DGC's assessment are anticipated to arise from the NLEI scheme, and would not be mitigated against through the siting and design of the scheme, as proposed.

1.2.1 Strategic / cumulative landscape effects on wind farm pattern; Development of the NLEI scheme would extend development across the currently undeveloped Lowthers between the emerging Upper Nithsdale and Clyde clusters of wind farm development, at odds with the more sensitive regionally distinctive Lowthers, and locally distinctive mining landscapes around Wanlockhead (and Leadhills). Were Harryburn also to proceed cumulative landscape effects with respect to wind farm pattern would be intensified. See 4.1.1

Significant cumulative landscape effects with respect to wind farm pattern would contribute to Grounds for refusal 1: NLEI would occupy an existing strategic *gap* in development.

1.2.2 Landscape and cumulative landscape effects on landscape character; NLEI would have direct significant effects on the Lowthers unit (LCT 19) and the Mennock unit (LCT 10), and significant indirect landscape effects on the Upper Nithsdale unit (LCT 9):

- *LCT 19 Lowthers unit.* The northern sector of summits and ridges would become a '*wind farm landscape*', and wind farm development would become a *key characteristic* of local areas, such as around the Wanlockwater Valley. See 4.2.1
- *LCT 10 Mennock unit.* Turbine 12 within LCT 10, and turbines 10, 11, 13 and 14 in neighbouring LCT 19 would be on the rim / skyline of the valley, becoming a *key characteristic* of approximately half of the unit. See 4.2.2

- *LCT 9 Upper Nithsdale unit.* In addition to the committed wind farm development over the uplands to the west and south of Upper Nithsdale wind farm development would become a *defining characteristic* of the upland backdrop and immediate setting either side of the valley, and across some areas of the valley. NLEI would occupy a large proportion of remaining open uplands, reading on the immediate valley backdrop skyline. See 4.2.3

Significant effects in terms of landscape character would contribute to Grounds for refusal 2, 4, 5, 6, 7 and 8.

1.2.3 Cumulative landscape (and visual) effects on landscape value and designation;

NLEI turbines 2-14, 17-21, and 32-35 lie within the RSA, and would detract from the character and associated scenic quality of the northwest Lowther unit (LCT 19), the Mennock unit (LCT 10), and a local section of the Upper Nithsdale unit (LCT 9), which contribute to the special; qualities of the Thornhill Uplands RSA. See 4.3.1 and 4.3.2

Significant cumulative landscape effects in terms of landscape value would contribute to Grounds for refusal 2, 4, 5, 6, 7, and 9.

1.2.4 Visual and cumulative visual effects: valley views for residents and visitors;

NLEI would have significant visual or cumulative visual effects on residents and visitors to the valleys of the Lowthers, Upper Nithsdale, the Wanlockwater, Mennock and Crawick Valleys; where turbines are seen dominating skyline backdrop of the Lowthers at short range. The Lowther Hills have an important role in the setting and scenic quality of these valleys. Effects would be cumulative in Upper Nithsdale, where in addition to the committed wind farm development over the uplands to the west and north NLEI turbines would occupy remaining open uplands, and appear to surround the valley, at times to an overwhelming degree. Within the other more enclosed valleys NLEI would introduce development.

- *Residents and visitors of Upper Nithsdale.* Turbines 1-14 seen on the skyline backdrop would detract from views along and across the valley and general visual amenity for residents, visitors, travellers on the A76 key tourist route, walkers, cyclists and other people visiting or recreating in Upper Nithsdale (VPs 8, 9, 10, 16). See 5.1.4
- *Views for residents, Wanlockhead area, and visitors to the mining heritage.* The rotars of turbines (20, 21, 26, 27) would be seen as perceptibly large and incongruous flicking over the side of the Wanlock Water Valley; and from higher elevations turbines 22, 24, 25 30, 31, and the rotar of turbine 23 would be in the focus of down-valley views. (VPs 2, 3 and 4) See 5.1.1
- *Views for visitors, campers and motor tourers from the Mennock Pass.* Turbines 11, 12, and 13 would appear out of scale and overbearing on the sensitive skyline and valley edge; and in close proximity to important landform and cultural features, detracting from the scenery (VP 7). See 5.1.2
- *Residents of the Crawick Valley and travellers along the B740.* Turbines 1, 2, 3 (and 4) and access track B would intrude to a significant degree on the valley near Corsebank and be a significant detractor in views (VP11). See 5.1.3

Significant visual effects for residents and visitors to the Lowther valleys, Upper Nithsdale, the Wanlockwater, Mennock and Crawick Valleys would contribute to the Ground for refusal 5, 6, 7, 8, 9, and 10.

1.2.5 Visual and cumulative visual effects: elevated views for hill walkers and other visitors;

NLEI would have significant visual or cumulative visual effects on SUW and other hill walkers, and visitors to the popular viewpoints of Lowther Hill and East Mount Lowther; where the turbines are seen across an extensive area of the Lowthers, sometimes at short range and at all times disrupting the scenic composition. Effects would be cumulative over

elevated areas, with NLEI the most prominent influence; through the enclosed Cog and Wanlockwater Valleys NLEI would introduce development. See sequential wirelines / visualisations Vol. II, Part 3.

- *Views from Lowther Hill and East Mount Lowther.* NLEI, in addition to wind farms seen at mid and longer ranges, would detract from the quality of views, extent of outlook, and visual amenity appreciated by SUW, other hill walkers, and visitors, (VP 6). See 5.2.1
- *SUW: Wanlockwater Valley.* Within the Wanlockwater Valley turbine groups to either side will at times become a significant intrusion to views and visual amenity (VPs 1, 4). See 5.1.1
- *SUW: Cog Valley.* From the secluded stretch of the SUW between Conrig Shoulder and Glengaber pass turbines 2-9 and 16-20 would close in surrounding skylines from the southern route, and turbines 15 – 28 would surround the northern loop at close quarters. See 5.2.2
- *SUW: Coupland Knowe to Conrig Hill.* Turbines 4 and 5 would be dominant to overwhelming around the pass. See 5.2.2
- *SUW: Glengaber Pass.* Turbines 20, 21, 25-29 would appear congested, and the wide array of turbines 1-9 would close off the longer range views (VP 1) See 5.2.2
- *SUW: descent from Whing Head.* NLEI would dominate the SUW outlook at medium range detracting from, the RSA scenery, and the setting of Sanquhar (VP 17). See 5.2.2

Significant visual and cumulative visual effects in terms of views for SUW and other hill walkers, and visitors to Lowther Hill and East Mount Lowther viewpoints would contribute to the Grounds for refusal 1, 2, 3, 4, 7 and 9.

1.2.6 Cumulative sequential visual effects: A76, B797 and SUW; Development of NLEI would be a landscape feature that would compromise the apparent extent of the Lowther Hills as an undeveloped tract of upland landscape, offering respite from wind farms, as appreciated sequentially from the A76 through Upper Nithsdale, and from the passes and footpaths crossing the Lowthers. NLEI would give rise to a variety of significant visual effects along the routes, and also sequentially with respect to dynamic and often dramatically unfolding views, and specific transitions and contrasts in character and outlook. Of particular concern to DG:

- A76 key tourist route DGC approach and between the regional border and Sanquhar (closest proxies VPs 9 and 16). See 5.3.1 / 5.1.4
- Between Mennock and Wanlockhead on the B797 through the Mennock Pass (VP7). See 5.3.1 / 5.1.2
- Between Crawick and Spango Bridge (VPs 11 and 12) on the B740. See 5.3.1 / 5.1.3
- Walking the SUW between Lowther Hill and Whing Head (VPs 1, 4, 6, 9, 17). See also 5.3.1 / 5.2.1 and 5.2.2

Significant cumulative visual effects in terms of sequential effects from the A76, B797, B740 and the SUW would contribute to the Grounds for refusal 2, 5, 7, 8, and 10.

2 Policy and guidance

2.1 Summary assessment against policy

2.1.1 Policy context; The NLEI Windfarm proposals extend across the Lowthers between Upper Nithsdale, the Mennock and Crawick Valleys, and the DG border. In terms of landscape-related policy and advice the following key points are noted:

- The scheme lies entirely within the LCT 19 Lowther unit, which has a High overall sensitivity to Large turbines in the DGWLCS; and in close proximity to the also High

sensitivity Mennock unit of Upland Glen LCT 10, and Upper Nithsdale unit of Upper Valley LCT 9.

- The scheme would introduce wind energy development in to some enclosed areas of the Lowthers (Crawick and Cog Valleys) and the Mennock Valley; but otherwise effects would be cumulative and of sufficient scale to influence the strategic / regional wind farm pattern; as well as more localised interactions in relation to committed developments in and around Upper Nithsdale.
- The scheme would occupy and directly impact on a substantial area of the Thornhill Uplands RSA, as well as indirect effects on other RSA areas and important viewpoints.

The Lowther Hills are an area of common interest with South Lanarkshire, and it is recognised that there is a regional landscape interest in this respect.

2.1.2 Acceptability of the scheme against policy; The significant strategic cumulative, landscape and cumulative landscape, and visual and cumulative visual effects of NLEI Windfarm, are judged to be such that the proposals are not considered acceptable* in landscape terms. The principle of riparian woodland proposed (see fig. 4.13), whilst welcome, would not adequately mitigate or compensate for the significant adverse landscape and visual effects that would arise as a result of the proposals.

The effects are not considered to be avoidable with modification to the scheme, although localised adjustments of layout and turbine height would greatly reduce the local adverse effects as set out in 1.1.5. It is recommended that these are pursued with the developer to ensure as good a scheme as possible is in consideration for decision makers.

*Please note that the landscape report covers assessment of the proposals in relation to landscape and visual issues only, not other environmental issues, or potential economic or social benefits. In terms of the LDP policies: *Acceptability will be determined through an assessment of the details of the proposal including its benefits and the extent to which its environmental and cumulative impacts can be satisfactorily addressed.*

2.1.3 Summary assessment against policy; Assessment of the submitted scheme in respect to likely issues / non-compliance with DGC policy is summarised in the following table.

DGC Policy (LDP 2014)	Significant adverse landscape, visual, and cumulative effects on:
OP1c): Development Considerations	<ul style="list-style-type: none"> • Local distinctiveness: Lowther Hills, appreciated as a regionally distinctive tract of hills, the southern and western ranges in DG, and northern and eastern ranges in South Lanarkshire. • Local distinctiveness: Lowther and Green Lowther Hills and ridgelines, are the key summits of the Lowthers, distinctive due to: the Civil Aviation radars and masts, which are regional landmarks; the highest metalled road in Scotland, which is a cycling-challenge; the highest summit of the SUW; and offering a relatively easy routes making the hills popular and accessible viewpoints. • Local distinctiveness: Wanlockhead (and Leadhills), historic mining villages and landscapes of local distinctiveness and with a strong sense of place, and in terms of their upland setting, nationally unique. • Local distinctiveness: Mennock Pass of local distinctiveness and with a strong sense of place, and in terms of their upland setting, popular for its recreational value for wild camping, picnics, gold panning etc. • Scale and character: incongruous proposal in undeveloped and scenic upland character context. • Designated value: Thornhill Uplands RSA (see also NE2 assessment), and SUW national trail highest point, locally significant effects on key RSA routes and viewpoint.
NE2: Regional Scenic Areas (RSAs)	Landscape character and scenic interest for which the Thornhill Uplands RSA has been designated: specifically the effects on the Lowthers (LCT 19) and Mennock Pass (LCT 10) ‘...where characteristics of landscape type are most strongly represented, including particularly strong sculptural reliefand where landscape

	<p><i>types are scenically juxtaposed with deep, steep sided valleys'; and also, '...all upland glens in Upper Nithsdale where they contrast dramatically with the adjacent southern Uplands.'</i></p> <p>Introducing a large area of turbines in to currently undeveloped RSA areas of Mennock Pass and Cog Valley; and cumulatively in addition to the (mostly) indirect effect of committed turbines on Upper Nithsdale between Mennock and Sanquhar, and in the wider views from Lowther Hill. (Turbines 2-14, 17-21, and 32-35 lie within the RSA.)</p> <ul style="list-style-type: none"> • Significant landscape and visual effects on the Lowthers unit of LCT 19 north of Lowther Hill, which is an important component of the RSA. • Significant landscape and visual effects on the Mennock unit of LCT 10, which lies entirely within the RSA. • Detracting from the quality and appreciation of key views from and to the area, such as views from the Lowther Hill ridgeline, and views towards the Lowthers from Upper Nithsdale, from where the stated RSA special qualities as quoted above, become most apparent.
IN2: Renewable Energy	<ul style="list-style-type: none"> • Landscape: <ul style="list-style-type: none"> ○ Lowther Hills regionally distinctive landscape (SNH, unit 74). ○ Landscape character, significant effects LCT 19 Lowthers unit and LCT 10 Mennock unit. ○ Wanlockhead locally distinctive historic mining landscape. ○ Effects on the north and western area of Thornhill Uplands RSA (significant effects). • Areas and routes important for tourism and recreational use in the countryside: <ul style="list-style-type: none"> ○ See IN2. • The amenity of the surrounding area: Wanlockhead and the Wanlockwater Valley, Upper Nithsdale, Mennock and Crawick Valleys, SUW between Whing Head and Lowther Hill, other access to Lowther Hill and East Mount Lowther viewpoints.
IN2: Wind Energy Part 1, Development Management Considerations	<p>NLEI development does not fully:</p> <ul style="list-style-type: none"> • Fully addresses the potential for mitigation: Or, avoid significant adverse impacts with respect to: • NLEI would introduce turbines with significant effects on landscape character: <ul style="list-style-type: none"> ○ Significant effects on landscape character: LCT 19 Lowthers unit local landscapes of Cog and Crawick Valleys, LCT 10 Mennock unit. ○ Landscape designation: Thornhill Uplands RSA, LCT 10 Mennock unit and Cog Valley local landscape of LCT 19. ○ Local distinctiveness: Wanlockhead historic mining village and associated Wanlockwater Valley local landscape. ○ Local distinctiveness: Mennock Pass. • In addition to other development NLEI would give rise to cumulative landscape effects: <ul style="list-style-type: none"> ○ The Lowther Hills: regionally distinctive landscape area, unit 74 in the SNH mapping, landscape variety in Scotland. ○ Cumulative significant effects on landscape character: LCT 19 Lowthers unit, and locally LCT 9 Upper Nithsdale. ○ Landscape designation: Thornhill Uplands RSA, Upper Nithsdale and elevated viewpoints, eg Lowther Hill. ○ Other landscape value: Lowther Hill landmark and summit experience. • NLEI would introduce turbines with significant effects on visual amenity and views: <ul style="list-style-type: none"> ○ Mennock Pass, and the contribution of the Lowthers upland backdrop to the scenery and visual composition, and drama of the unfolding sequential view, as appreciated by people recreating and motor touring. ○ Crawick Valley between Spoth and Spango Bridge, as appreciated by scenic drivers and residents. ○ Wanlockwater Valley, and including Wanlockhead, as appreciated by residents, SUW walkers and visitors to the mining heritage. ○ The Cog Valley, as appreciated by SUW walkers. • In addition to other development NLEI would give rise to cumulative effects on visual amenity and views: <ul style="list-style-type: none"> ○ Views from Lowther and East Mount Lowther Hills, including the panoramic long ranging view; the focus on the regional landmark

	<p>of Cairntable and Cairkinna; and short range views to Wanlockhead and the Mennock Valley, as appreciated by SUW walkers, hill wakers and other visitors.</p> <ul style="list-style-type: none"> ○ Views and visual amenity of Upper Nithsdale, as appreciated by residents, mostly of Kelloholm and surrounding countryside, and other dispersed properties along the valley back road and over Sanquhar and Auchentaggart Moors. ○ Views and visual amenity of Upper Nithsdale, as appreciated by visitors to Crawick Multiverse, golfers, and recreators (walkers, cyclists, horse riders), travellers on the A76 key tourist route approaching DG and to Sanquhar from the DG border. ○ Views and visual amenity of the SUW traversing upper Nithsdale. As appreciated by walkers from key vantage points along the route, and sequentially, the descent to Sanquhar, and ascent to Conrig Hill. <ul style="list-style-type: none"> ● Cumulative impacts, in addition to the Clyde wind farms and the Upper Nithsdale cluster of committed development: <ul style="list-style-type: none"> ○ Detracting from the coherent wind farm pattern: which associates with less sensitive landscape areas and avoids the more sensitive Lowther Hills. ○ Sequential visual effects along the A76 key tourist route in Upper Nithsdale, B797 iconic Mennock pass, the B7040 and the SUW. ● DGWLCS, NLEI fails to comply: LCT 19 Lowther's unit, LCT 10 Mennock unit, LCT 9 Upper Nithsdale unit. ● Tourism and recreational interests: visual effects on views and visual amenity: <ul style="list-style-type: none"> ○ B797 iconic Lowthers pass between Mennock and Wanlockhead. ○ Wanlockhead village and mining heritage. ○ SUW national trail through the Wanlockwater and Cog Valleys. ● Tourism and recreational interests: cumulative visual effects on views and visual amenity: <ul style="list-style-type: none"> ○ A76 key tourist route approaching DG and Sanquhar. ○ SUW national trail, effects on views from, the highest point on the trail and descent from Lowther Hill to Wanlockhead, the Glengaber pass, and the traverse of Upper Nithsdale between Whing Head and Conrig Hill shoulder. ○ Metalled road up Lowther Hill (and Green Lowther), highest in Scotland, challenge route for cycling, and access for skiing, provides relatively easy access to popular viewpoints, local effects from descent, summit views and ridgeline route. ○ East Mount Lowther promoted viewpoint, popular summit. ○ Crawick Multiverse, visitor attraction. ○ Sanquhar golf course. ○ Network of minor roads and footpaths in Upper Nithsdale, including particularly the back road between Mennock and Kirkconnel, the Fingland access road / LDR and Todholes Hill, and core paths across Auchentaggart Moor.
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2.2 Landscape sensitivity and capacity

2.2.1 Compliance with the DGWLCS, Lowthers unit, LCT 19; The Lowthers unit (LCT 19), which is a relatively extensive unit taking in the DG ranges of the Lowther Hills, is the main host for the NLEI scheme, with all the turbines except 12 lying within the unit. The turbines and additional infrastructural elements of NLEI would give direct effects over a substantial area and distinct topographic area of the Lowther unit, to the north west of the Lowther ridgeline and between the Mennock and Crawick Valleys.

The *Rugged Southern Upland* areas of LCT 19, which include the Lowther unit, have a High sensitivity to Large and Medium typologies (>50m): *'These uplands have a generally consistent and homogenous character...forming high hills with often dramatic sculptural landform. While the expansive scale of these uplands could relate to larger typologies, their distinctive landform, where hills are pronounced and often form steep, rugged edges to adjacent dales and upland glens. Is a key constraint to developmentthese uplands are particularly valuable because of their openness and absence of built development and large-*

scale forestry. There is a High to Medium sensitivity for Large and Medium typologies with regard to Landscape Values, due to RSA designation.

As well as the dramatic landform, other key constraints to development include: the backdrop and distinctive skyline provided to Nithsdale, and the contribution the sculptural open uplands make to wider scenic qualities / RSA designation; areas of extensive heather moorland; and the recreational use of the uplands.

The DGWLCS states that there is no scope for turbines exceeding 50m without incurring significant impacts on a number of key characteristics. The DGWLCS excerpts below (LCT 19, Large typologies) are relevant for NLEI in the context of the Lowther unit. It is considered the proposals are at odds with these statements in the detailed assessment:

- *Scale and openness: Tall turbines could relate to this generally open and large scale landscape without dominating the height of the hills. Expansiveness is reduced however within the narrow valleys which frequently cut into these hills and where the more pronounced peaks provide enclosure, thus limiting scope to site large numbers of turbines. Sensitivity: Medium*
- *Landform: turbines would detract fromkey landform features if located close to them. They would diminish the drama of sheer slopes abutting deeply incised glens and dales especially if located close to these 'scarp' edges or seen above them on the skyline. ...It would be difficult to attain a cohesive layout for larger developments (=30 turbines) in areas where convoluted ridges and relatively defined tops feature. There are very few less complex areas of landform present where this typology would not impact on nearby distinctive landform features or landmark hills. Sensitivity: High*
- *Landscape context: This typology could dominate adjacent settled landscapes and diminish the role of these areas of southern Uplands in providing a simple but dramatic backdrop to settled landscapes, thus adversely affecting wider landscape composition and scenic qualities. Sensitivity: High*
- *Views and visibility: This typology would be likely to impact on key views to these uplands from adjacent settled valleys where skylines are characteristically open and uncluttered by built development. Turbineswould be likely to dominate views from settlements and roads due to the limited geographical extent of this type. Development could have a significant impact on views from popularly accessed hills.*
- *Landscape values: The RSA citations note the important role of these uplands in providing dramatic sculptural landform and contrast with adjacent valleys which contributes to the scenic quality of the wider landscape. The value of these open less modified uplands is also noted in relation to the presence of extensive forested uplandsreducing their contrast with surroundings...*

2.2.2 Compliance with the DGWLCS, Mennock unit, LCT 10; The Mennock unit (LCT 10), which is a relatively small unit, is a secondary host, with turbine 12 lying just within the boundary. However, turbines 10, 11, 13 and 14 also lie in close proximity and would have a high degree of prominence, influencing the landscape character and experience of at least half the unit; and dominating views and the visual amenity along the B797 through the most Mennock Pass between Glenim and Moor End, which is the most popular stopping stretch and notably dramatic beauty spot.

All the *Upland Glens*, including the Mennock unit of LCT 10 have a High sensitivity to Large, Medium, and Small-medium typologies (>20m): *'The Upland Glens are enclosed and often narrow, contained by steep sides which rise to form irregular ridgelines. The narrowness and enclosure of these glens create a contained and relatively small scale landscape and this severely limits scope for larger wind farm typologies.'* There is a High-medium sensitivity for Large, Medium, and Small-medium typologies with regard to Landscape Values, due to RSA designation, and likely effects on special qualities.

As well as the narrowness of the glens limiting scope for larger turbines and dramatic forms of steep-sided hill flanks and ridges, other key constraints to development include: *'the upper edge of the valleys, where the irregularly shaped enclosing ridgeline is visually prominent against the sky viewed from within the glen and which would be sensitive to wind turbines sited in these glens and in adjacent upland areas.'*

The DGWLCS states that there is no scope for turbines exceeding 20m without incurring significant impacts on a number of key characteristics: *'The small scale and narrowness of these glens make them particularly sensitive to extended and multiple developments sited in surrounding uplands and seen on prominent skylines which may be seen successively or appear to surround the area. The glens are experienced from key tourist routes and minor roads enjoyed for quiet recreation with valued scenery.'* It is considered the proposals, particularly turbines 10-14, are at odds with these statements.

2.2.3 Compliance with the DGWLCS, Upper Nithsdale unit, LCT 9; Turbines 1-9 and 10-11 are prominent and elevated above the Upper Nithsdale unit (LCT 9), and may give rise to indirect landscape and visual effects. The majority of Upper Nithsdale unit (LCT 9) would have a high degree of influence from NLEI, which would occupy the immediate backdrop skyline and setting of the valley between Mennock and Sanquhar, including Auchentaggart Moor; and be visually prominent, and at times dominant and overwhelming from a large number of highly sensitive visual receptors (residents, visitors and people recreating) from the DG border to Sanquhar, Auchentaggart and Sanquhar Moors, and from across the valley.

The Upper Nithsdale unit of LCT 9 has a High sensitivity to Large and Medium typologies (>50m), with Landscape values High-medium for RSA designated areas, and Low for undesignated areas to the northwest.

The influence of operational wind farms and large turbines is considerable and will increase as the committed development is built out. The DGWLCS anticipates significant cumulative effects on the views from roads, settlements and footpaths within northwestern Upper Nithsdale, particularly arising from Hare Hill, Sunnyside, Sandy Knowe and Glenmucklock. NLEI would be at odds with the key constraints to development set out for the valley: *'the density, extent and inter-visibility of large wind farms and wind turbines sited both in this character type (LCT 9) and within nearby Southern Uplands (19)....which inhibits scope for further development'; 'cumulative effects of multiple wind farms sited in the Southern Uplands (19) and Southern Uplands with Forest (19a) either side of this upper dale and seen on prominent skylines from roads and settlement.'*; and *'the RSA designation....to the southeastern part of this landscape.'*

Under guidance for development the DGWLCS states: *'This landscape is sensitive to wind farm development sited in the adjacent.....Southern Uplands (19) particularly where the dale is narrow and turbines would form prominent features seen above steep containing slopes. Extended and multiple wind farm developments seen on skylines of the adjacent uplands from key transport routes and settlement could create a dominant corridor effect.'* NLEI would potentially give rise to just such adverse effects, particularly turbines 1-11.

2.3 Policy background

2.3.1 Dumfries and Galloway Council Policy; The proposals are assessed in landscape terms against policies in the new LDP (adopted autumn 2014). The Examination Report recommendations resulted in a new LDP policy wording that split Policy IN2 in to 2 parts. Part 1 of Policy IN2 deals with Development Management Considerations that apply to the assessment of all wind energy proposals, and Part 2 deals with the Spatial Framework.

Following the Examination Report and revisions to SPP, the Spatial Framework maps in the LDP have an interim status only, and will be revised as part of the next LDP. Whilst the maps provide some guidance, Part 1 of the policy will carry more weight as a material consideration, until such revisions are made.

2.3.2 DGC Supplementary Guidance and Technical Papers; These support the LDP policies. Most relevant for all wind farm development management work are:

- Supplementary Guidance (SG) Part 1: Wind Energy Development (WED), Development Management Considerations (2017).
- The recently updated DGWLCS (2017) forms Appendix C of the 2017 SG: WED. It remains a key material consideration, and is embedded in the wording of the LDP policy IN2.
- Technical Paper, Interim Spatial Framework (2014). Whilst the mapping remains to be updated the document sets out some important criteria, and of great relevance to strategic cumulative issues, particularly *maintenance of a cohesive wind farm pattern*.

Depending on the sensitivities of the receiving landscape, such as designations, tree issues, etc, other DGC SG, technical papers, and management plans are referenced.

2.3.3 National guidance; There are two key Scottish Natural Heritage (SNH) guidance documents against which all wind energy proposals are assessed:

- Visual representation of Wind Farms (February 2017), which sets out the specification for the LVIA visualisations.
- Siting and Designing Wind Farms in the Landscape (February 2017), which establishes the siting and design principles against which the proposals are tested; and of great relevance now regarding cumulative issues / designing with multiple wind farms.

SNH provides a raft of other advice and policy that is important on a case-by-case basis depending on the sensitivities of the receiving landscape, referred to as required.

Visualisations and other aspects of the LVIA definitions and methodology are set out in the Guidelines for Landscape and Visual Impact Assessment 3 (2013, GLVIA3). The ES / LVIA are not reviewed in detail by DGC, beyond being broadly fit for purpose, although any obvious short-fallings are noted and may require to be rectified.

2.3.4 SPP (2014); The following paragraphs from SPP are most relevant relating to landscape character, including cumulative impacts:

- *The pattern of development should be appropriate to the character of the particular rural area* (para. 75).
- Positive change should be facilitated, while *maintaining and enhancing distinctive landscape character* (para. 194).
- *The siting and design of development should take account of local landscape character. Development management decisions should take account of potential effects on landscapes....including cumulative effects. Developers should seek to minimise adverse impacts through careful planning and design.....and maximising the potential for enhancement* (para. 202).
- *Planning permission should be refused where the nature or scale of proposed development would have an unacceptable impact on the natural environment** (para. 203). *SPP includes *Landscape* considerations in this term.

3 Overview: ES, proposals, landscape and cumulative context

3.1 Environmental Statement: summary review

3.1.1 Summary review of ES / LVIA and other application information; Full reviews of the NLEI 2017 LVIA has not been undertaken. However the documents are considered generally adequate:

- Representation and use of baseline landscape, visual, and cumulative information.
- Range of selected representative viewpoints.
- Visualisation quality and organisation.

Any specific information regarding tree works, ground works or other engineering associated with the abnormal routes and access points must be provided. Specifically detail Landscape Plans should be provided for the access point from the public road.

Note:

- Significant effects are defined as Major or Moderate.
- The cumulative assessment is focused on a detail study area, radius 15km.
- The LVIA cumulative assessment considers NLEI against the landscape and visual baseline including existing and being built schemes. Additional cumulative effects are for scenario 2, which includes consented schemes, and scenario 3, which includes in-planning schemes.
- Residential visual amenity within 2-2.5 km, using the Lavender Test / whether property would become an 'unattractive place to live', to assess significance.

3.1.2 Design evolution; The design development through a number of layout iterations is shown in Fig. 3.1; including a feasibility layout based on a preliminary maximising energy yields (140 turbines x 130m tip height), and four intermediary iterations before the final layout shown in Fig. 4.1.

Turbine numbers are decreased from 140, to 53, 42, 40, and to the final 35 turbines; with a halving of the footprint area from a larger site stretching eastwards from Wanlockhead and the DG border to the Clyde Valley, and incorporating the Elvan Water Valley and the current in-planning Harryburn site. ie. The entire northern section of the Lowther Hills. Feasibility study based on a preliminary layout maximising energy yields: 140 turbines x 130m tip height. Turbine heights were increased to 160m in layout 2, to maximise yield, and subsequently reduced to 150m to address a range of concerns including visual impacts from SUW and Wanlockhead, and the final 149m. Details of the layout iterations are set out in Table 3.1: Modifications to the Development Design. It is noted that during the design modification process consideration was given to a smaller number of taller turbines, 17 x 198m, but this was discounted, largely on technical grounds. The final layout is shown in Fig. 4.1.

3.1.3 Final proposals; The NLEI proposal is for 35 no. wind turbines and associated infrastructure. See Fig. 4.1 for locations. The following are anticipated to give rise to landscape and visual impacts:

- 35 no. wind turbines, 149m to blade tip (147MW generating capacity). Hub height 89m and rotor blade 120m diameter.
- 36km of new access track, with 3 km upgraded track and 33 km new track with passing places and water course crossings.
- Use of 3 km existing forest tracks, without upgrade to transport materials from borrow pits.
- Two access points on to B740; (A) Wanlock Water Valley / Well Hill site access track, and (B) Cog Valley / Conrig Hill access track.
- Access point A to be upgraded for HGVs and abnormal loads, with the upgrade of existing bridges in the area.

- Access point B would also be upgraded for general construction traffic, and with an additional access point for abnormal loads. This access would also require a new bridge.
- 1 no. substation compound on the northerneastern shoulder of Wedder Dod, including a transformer and electrical equipment.
- 5 no. temporary construction compounds / lay down areas; set back from B740 (1) Wanlock Water Valley access track and (2) Cog Valley access track, (3) Slough Hill, (4) Cog Hill, (5) White Dod.
- Anenometer masts are presumed to be required but have not been specified.
- 5 no. borrow pits, search areas; (1) Northwestern slopes of Glenrae Dod, (2) southeastern slopes of Clackleith Hill, and (3, 4, 5) northeastern mid-slopes of The Dod and Conrig Hill.
- 2 no. potential concrete batching plants, to be located in the excavated borrow pits.
- Felling, 69.11 ha. forestry, with replanting 32.5 ha. forestry, and 36.61 ha of compensatory planting delivered within the search areas for riparian woodland.
- Conservation management plan, tailored to benefit birds (hen harrier, merlin, short-eared owls, black grouse, curlew, lapwing), bog and dry heath habitats, riparian planting, and including a funded Regional Hen Harrier Project Officer post. Amounts and locations of riparian woodlands to be confirmed, with search areas (Fig. 4.13); Wanlock Water Valley, Glenclach Burn (Mennock Valley tributary), Glendyne.

3.1.4 LVIA Representative viewpoints, with key landscape and visual receptors;

Note: DG viewpoints in black text, other viewpoints greyed out text.

	Landscape receptors	Visual receptors
VP 01 Glengaber Hill	LCT 19, Lowthers unit Thornhill Uplands RSA	SUW and other walkers
VP 02 Wanlockhead Beam Engine	LCT 19, Lowthers unit Thornhill Uplands RSA	Residents Visitors, site
VP 03 Wanlockhead Museum	LCT 19, Lowthers unit Thornhill Uplands RSA	Visitors, sites and facilities
VP 04 Upper Wanlockhead	LCT 19, Lowthers unit Thornhill Uplands RSA	Residents SUW and other walkers
VP 06 Lowther Hill	LCT 19, Lowthers unit Thornhill Uplands RSA Setting issues	SUW and other walkers Cyclists, skiers Visitors, viewpoint
VP 07 Mennock Pass	LCT 10, Mennock unit Thornhill Uplands RSA	Walkers Tourers, scenic drivers, cyclists Visitors, beauty spot, picnics, wild campers
VP 08 Auchentaggart Moor	LCT 9, Nithsdale unit Thornhill Uplands RSA	Residents Core path walkers
VP 09 Sanquhar Golf Club	LCT 9, Nithsdale unit	Residents (proxy VP) SUW and other walkers, cyclists, golfers
VP 10 Crawick Multiverse Park	LCT 9, Nithsdale unit	Residents (proxy VP) Visitors, sites, routes, facilities
VP 11 Corsebank	LCT 19, Lowthers unit	Residents Tourers, scenic drivers, cyclists
VP 12 Spango Bridge	LCT 19, Lowthers unit	Tourers, scenic drivers, cyclists
VP 13 Crawfordjohn		
VP 14 B740/B7078 junction		
VP 15 Todholes Hill	LCT 19, NW Lowthers unit	Walkers, local viewpoint
VP 16 Kelloholm	LCT 9, Nithsdale unit	Residents
VP 17 SUW, Whing Head	LCT 19, Nithsdale unit	SUW and other walkers
VP 18 Auchenknight	LCT 18, Nithsdale unit	Residents

	Thornhill Uplands RSA Drumlanrig IDL	Walkers, cyclists Visitors, routes (proxy VP)
VP 19 Closeburn	LCT 7, Nithsdale	Residents Cyclists Visitors, A76 key tourist route
VP 20 Blackcraig Hill		
VP 21 New Cumnock		
VP 22 Cairn Table		
VP 23 Devonburn Road, M74		
VP 24 Tinto Hill		

3.1.5 Summary findings; the following summarises the ES assessments of landscape and visual effects.

Landscape. With respect to landscape and cumulative landscape effects, in a scenario of existing / consented / under-construction wind farms, the following table sets out landscape effects reported in the NLEI 2017 LVIA, based on the committed development context. The LVIA generally assesses Significant landscape effects to occur within 7km of the development, and notes Significant cumulative landscape effects for the Upper Dale (LCT 9) Nithsdale unit.

Landscape receptors	LVIA landscape / cumulative landscape effects.
Landscape character types	(6.124-6.187)
Host LCT 19 Lowther unit – N	Significant landscape / cumulative effects (Major / Moderate) up to 7km
Host LCT 10 Mennock unit	Not significant landscape (Minor) overall (*), locally significant
LCT 19 Lowther unit – S	Not-Significant (Major to Major / Moderate) beyond 7km
LCT 19 NW Lowther and Nithsdale units	Not significant (negligible)
LCT 9 Upper Nithsdale unit	Significant landscape / cumulative landscape (Major / Moderate) up to 7km
Landscape designations	(6.485)
Thornhill Uplands RSA – N and viewpoints up to 13km	Significant (Major / Moderate)
Thornhill Uplands RSA - S	Not-Significant (Minor)

Visual. With respect to visual and cumulative visual effects, in a scenario of existing / consented / under-construction wind farms, the following table sets out visual effects reported in the NLEI Windfarm 2017 LVIA. The LVIA generally assesses Significant visual effects to occur within 12.5km of the development, for 14 of the 24 representative Viewpoints, including Wanlockhead, sections of the A76 (including cumulatively with other developments), the B797 / Mennock Pass, the B740 / Crawick Valley, sections of the SUW, Coffin Road, and Muirkirk to Wanlockhead Drove Road. Significant cumulative visual effects are noted for Lowther Hill (VP 6) and Crawick Multiverse (VP10).

NLEI DG Viewpoints (VP)	LVIA visual / cumulative visual effects.
Representative viewpoints / visual receptors	Table 6.5, scenario 1 and text 6.202-6.307
VP 01 Glengaber Hill	Significant (major)
VP 02 Wanlockhead Beam Engine	Significant (moderate)
VP 03 Wanlockhead Museum	Significant (moderate)
VP 04 Upper Wanlockhead	Significant (major)
VP 06 Lowther Hill	Significant (major)
VP 07 Mennock Pass	Significant (major)
VP 08 Auchentaggart Moor	Significant (major)
VP 09 Sanquhar Golf Club	Significant (major)
VP 10 Crawick Multiverse Park	Significant (major)

VP 11 Corsebank, B740	Significant (moderate)
VP 12 Spango Bridge	Not significant (minor)
VP 14 B740/B7078 junction	Not significant (minor)
VP 15 Todholes Hill	Not significant (minor)(*)
VP 16 Kelloholm	Significant (major)
VP 17 SUW, Whing Head	Significant (major)
VP 18 Auchenknight	Not significant (minor)
VP 19 Closeburn	Not significant (negligible)
Sequential visual receptors	LVIA cumulative sequential visual effects. Text
B797 – Mennock - Wanlockhead	Significant (moderate)
B740 – Nether Cog – Spango Farm	Significant (moderate)
SUW – E bound, Whing Head - Sanquhar	Significant (moderate)
SUW – E & W bound, Sanquhar Moor to Lowther Hill	Significant (moderate)
A76 – Knockenjig – Sanquhar (2km)	Significant (moderate)
A76 – all other stretches	Not significant (minor / negligible)
Coffin Route, Wanlockhead - Sanquhar	Significant (major) (not assessed by DGC)
Drove Road, Muirkirk - Wanlockhead	Significant (moderate / major) (not assessed by DGC)

3.1.6 Conclusions; For a large part the DGC landscape assessment aligns with significant effects (not necessarily degrees of effect) with the NLEI 2017 LVIA, with respect to visual effects; with some important exceptions in relation to landscape character (LCT 10), and in factoring in cumulative effects. Exceptions where DGC would also consider effects significant are indicated with an asterisk, emboldened (*) above.

However, there is a considerable difference of professional opinion regarding the suitability of the proposals and for a large part agreed significant landscape and visual effects. The Scheme Design Conclusion (para. 3.39-3.42) states that the local policy context has been considered, but takes no account of the landscape sensitivity, as set in the DGWLCS, or of the landscape value. By way of justification the conclusion relies on an ‘inevitability argument’ (3.4.2). It is not agreed that a scheme with this level of significant adverse effects, and so clearly at odds with policy, has struck a balance responding to its location.

3.2 Proposals

3.2.1 Elements of the proposals likely to give rise to significant effects in DG; The wind farm overall would detract from panoramic views from Lowther Hill, and East Mount Lowther; extending wind farm development from the more distant emerging cluster in Upper Nithsdale and Clyde; and detracting from the character and scenic qualities of the Thornhill Uplands RSA.

The following turbine groups and infrastructure would give rise to some specific significant affects in different areas:

- *Turbines 1-9:* These turbines would impact on the backdrop skyline and setting of Upper Nithsdale, and on the visual amenity and views from the valley, as appreciated by a large number of sensitive visual receptors. Turbines 3-9 would impact particularly on the SUW across Nithsdale and the cog Water Valley; and turbines 1-3, and also some of the infrastructural elements, would be prominent from the Crawick Valley.
- *Turbines 10-14:* These turbines would impact on: the immediate setting, character, visual amenity and views from the Mennock Pass and road; the dramatic landforms of the pass seen from the elevated Lowther and East Mount Lowther viewpoints; and views of the Mennock Valley and of Glendyne from Auchentaggart Moor and across Upper Nithsdale. These turbines would also have a prominence along the valley side of Upper Nithsdale and read as an extension of the array of turbines 1-9.
- *Turbines 15-31:* These turbines are least prominent in wider landscape views, but would impact on the SUW. Turbines 22-24 would also impact on the wider setting of

Wanlockhead village, and on the setting of the Wanlockwater Valley, for residents, visitors to the mining heritage, and SUW walkers.

- *Turbines 32-35:* These turbines would impact on the wider setting of the Wanlockwater Valley, particularly as appreciated from the SUW, such as at Glengaber Pass. They are also especially discordant in design terms in the elevated Lowther Hill views.

3.2.2 Potential for further mitigation; With respect to the key issues, section 1.1.5 sets out potential further mitigation by design. However, whilst addressing some specific local concerns, none of these reductions in layout or adjustments of turbine scale would alone, or in combination, take away the in-principle problems that NLEI gives rise to. The principle of a Large typology Windfarm in this location would remain strategically problematic.

3.3 The site and context

3.3.1 Site; The NLEI site takes in an area of the Lowther Hills, within the Queensberry Estate and lies approximately 2 km northeast of Sanquhar, 1 km west of Wanlockhead, and 5 km southwest of Crawfordjohn. Bounded by the Crawick Valley to the north, the Mennock Valley to the south, Upper Nithsdale to the west and extending to the Dumfries and Galloway border to the east, these uplands are typically made up of rounded summits and ridges, dissected by steep sided valleys.

The turbines and the associated infrastructure of access tracks are sited in a number of arrays along these watershed ridges and summits between the main valleys of the Mennock and Wanlock Water, the Glendyne and Cog Burn Valleys, and around the headwaters of their tributaries. As such, and due to the large size and wide spacing of the turbines, the proposals do not relate to a single topographic feature. Except in longer range views where the development is seen as a skyline feature across the Lowthers as a whole, the turbines tend to be perceived as a number of distinct groups, separated by the larger valleys. (See Fig. 4.1) These are:

- Turbines 1-9 form a wide arc across the open upper slopes and summit ridges of Dod, Conrig, Willowgrain and Stood Hills, to the south of the Cog Water Valley and its tributaries, at 420-500m AOD.
- Turbines 10-14 form a shorter southern arc across the open upper slopes and summit ridges of Brown and Wether Hills, White Dod and Bail Hill, between Glendyne and the Mennock Valley, at 410-520m AOD.
- Turbines 15-31 extend over the partially forested upper slopes of the interlocking spurs and summit ridges between the Cog and Walock Water Valleys, Tongue Hill, Lowmill Knowe and Highmill Knowe, Well Hill, Duntercleuch Rig, and Wedder Dod, at 320-450m AOD.
- Turbines 32-35 are a staggered row across the open summit ridges between the Wanlock Water and upper Snar Valleys, Slough and Reecleuch Hills, at 400-450m AOD.

The development occupies open moorland, with some less extensive areas of commercial conifer plantation, managed for agriculture and sporting purposes. Local transport and recreational routes run through the site: the scenic B740 and B797 / Mennock Pass, the SUW, and a number of other long distance footpaths. The site occupies the northern section of the Thornhill Uplands RSA, and immediately adjacent to the Lowther and Leadhills Special Landscape area (Fig. 6.4).

3.3.2 Landscape context; The upland area of the NLEI site lies in the northwestern ranges of the Lowther Hills, which continue as a regional area of distinctive uplands eastwards to the River Clyde, and south beyond Lowther Hill and the distinctive Green Lowther / East Mount Lowther ridgeline to the Dalveen Valley and southern ranges beyond. These centre on the Durisdeer Hills, Wedder and Gana Hill, and beyond the DG border on

the Daer Water Valley and Reservoir, and culminate with the distinctive Queensberry. Within DG the Lowthers have an important role in both Annandale and mid and upper Nithsdale, with these northwestern ranges providing the backdrop skyline to Upper Nithsdale, and extending to the DG border; and the coupled mining villages of Wanlockhead and Leadhills.

The Lowthers are notably dramatic and more rugged uplands of high scenic quality, compared to areas to the north of the Crawick Valley, or east of the Clyde. Most of the Lowther unit (LCT 19) is within the Thornhill Uplands Hills RSA; and this is continuous with South Lanarkshire's Special Landscape Area (SLA), Lowthers and Leadhills, forming an adjacent designation to the east. Turbines 2-14, 17-21, and 32-35 lie within the RSA.

The upland site would be prominent from the west and south of Upper Nithsdale, where the Lowthers assume greatest importance as a backdrop / skyline. The A76 key tourist route would be likely to have greatest visibility approaching the DG border and onwards to Sanquhar, as it would orientate on the scheme, and the turbines would become a focus to views. The upland site forms the backdrop to a number of villages: Sanquhar, Crawick and Mennock; and would in parts be visible from these and from Kirkconnel and particularly Kelloholm across Upper Nithsdale, as well as the dispersed properties over Auchentaggart and Sanquhar Moors, across the valley along the Mennock / Kelloholm back road, and west of Kirkconnel. The scheme would also be visible in part from Wanlockhead, and occupying the wider upland setting of the village, along with Leadhills. The proximity of the site to the Mennock Valley would mean the turbines would be prominent above the B797 through the Mennock Pass. Turbines and some infrastructural elements would also be a local feature from the B740 along the Crawick Valley.

3.4 Landscape value

3.4.1 Landscape value, Lowther Hills; The Lowther Hills have a strong geographical and cultural integrity, and are a **regionally distinctive landscape area**. They are represented as unit 74 in the SNH mapping of landscape variety in Scotland. They are a shared area of interest for Dumfries and Galloway, which takes in the southeast, south and west, and South Lanarkshire taking in the northeast. As set out (1.1.3), the Lowthers are a notably scenic and high quality landscape, and are recognised by the local landscape designations of the Thornhill Uplands RSA and the Leadhills and the Lowther Hills SLA. In contrast to surrounding uplands, the area is for the most part undeveloped by extensive commercial forestry, or larger typology wind farms. The area represents typical / best representative aspects of these areas' special designated qualities.

As well as offering a stretch of relatively 'unspoilt' and open uplands along the route of the SUW, the Lowthers are a popular area for visitors, with opportunity and tradition for enjoyment and visiting the countryside and outdoors, readily accessible to local populations and people from the Central Belt:

- The Lowthers are a highly valued resource for informal recreation and tourism, including walking, wild camping, picnics, gold-panning, scenic drives, skiing, cycling, visiting the historic villages and mining heritage, including the preserved former industrial narrow gauge railway, the Leadhills and Wanlockhead Railway.
- There is good access to the Lowther Hills, from the major transport corridors of the Clyde and Annan valleys to the east, and Nithsdale to the west; from a number of passes crossing the range, including the Dalveen, Mennock and Crawick, which have elevated roads with especially panoramic and scenic views; and from an extensive network of footpaths and core paths, often following ancient routes through the hills.
- The hills contribute to the scenery and dramatic landscape context of all these routes; and form the outlook and backdrop to the towns of Sanquhar, Beattock, Moffat,

Durisdeer, Thornhill, Elvanfoot, Crawford, Abington, and Crawfordjohn; as well as the immediate setting for Wanlockhead, the highest village in Scotland, and its close neighbour Leadhills. Residents of all these towns both look on to the hills and use them as a local resource for recreation.

- The valleys and rivers around Wanlockhead and Leadhills villages are unusually accessible for recreation, as the roads run across unenclosed riverside meadows, and the passing places and lay-bys facilitate roadside stopping. The Mennock Pass is an iconic beauty spot, well known for riverside picnics and wild camping.
- The central summits of Lowther Hill, Green Lowther and East Mount Lowther are popular, promoted and accessible panoramic viewpoints. As well as being a focus to views of the Lowther Hills, with the Civil Aviation infrastructure and masts a regional landmark, the hills and linking ridges provide all encompassing panoramic views taking in the south of Scotland to the Highland line and Solway and the western seaboard to the Paps of Jura. At the regional scale there is strong intervisibility with other high points; the isolated and iconic hills of Tinto Hill, Cairn Table, and Cairnkinna, and also the Moffat Hill range focused on Hart Fell. At 725m, crossing Lowther Hill would be the high point along the SUW, and as such the value and resultant sensitivity of this view to change is particularly high.

3.4.2 Landscape value, Wanlockhead and Leadhills; Within the wider Southern Upland landscape character types / units, the attractive Wanlockwater Valley, with the historic mining village and landscape of Wanlockhead set at its head, and closely associated with the conservation village of Leadhills at the heads of the Glengonnar and the Elvan Water Valleys, form two closely connected local landscape sub-areas. The setting of the Lowther Hills combine with features of the historic mining landscape, and are defining characteristics of these villages. They form a **locally distinctive historic mining landscape**, with a strong and very particular sense of place and aesthetic quality.

'This fascinating contrast between the former lead mine industry and upland landscape would appear to be unique in the Scottish context.'

(p.19 South Lanarkshire, Validating Local Landscape Designations, Ironside Farrer)

These villages and their landscape setting are particularly well appreciated in the elevated views from Lowther Hill and Green Lowther, and from the SUW route descending this ridge. They are also culminations to the scenic approaches up the Mennock Pass

There is a heritage centre and mining museum at Wanlockhead, and a number of attractions for visitors, such as an underground tour, the beam engine, miner's cottages, industrial narrow-gauge railway, all linked and connected to the wider landscape and features by heritage trails, with interpretation. However, the heritage potential of this area is arguably not as yet fully realised in terms of its potential value.

3.5 Cumulative issues

3.5.1 Committed pattern of wind farm development; The Lowthers are undeveloped in terms of wind farms. There is a Civil Aviation infrastructure on the Lowther Hill / Green Lowther ridgeline; of which the radar-ball and masts are prominent landmark features in the wider landscape. There are emerging clusters of larger wind farm typology development:

- To the southwest of Upper Nithsdale at 5-15km, including Hare Hill (20 x 62.5m) and consented Hare Hill Extension (39 x 62.5m), Whiteside Hill (13 x 121m), consented Sanquhar (12 x 126.5m) and Sanquhar Six (6 x 130m), Sandy Knowe (24 x 125m), Twenty Shilling (9 x 125m), and undetermined Ulzieside (10 x 120m).

- To the north of Upper Nithsdale at approximately 10-15+ km, including Andershaw (11 x 125m), consented Middlemuir (15 x 152m), Glenmuckloch (8 x 132m), Penbreck (9 x 125m), and Kennoxhead (19 x 146.5m), and undetermined Glentaggart (5 x 132m).
- Clyde Windfarm approximately 10+ km (152 x 125m turbines) and including the Clyde Extension (53 x 125.5 and 142m), and consented Lion Hill (4 x 126.5m) and Crookedstane ((5 x 126.5m).
- To the south of the Lowthers beyond 15km, including Harestanes (71 x 125m), Minnygap (10 x 125m)
- It is anticipated there would not be significant interactions with the Carsphairn, or Glenkens wind farm clusters, which lie beyond 25km to the west, and beyond intervening development.

NLEI would introduce wind energy development in to some enclosed areas of the Lowthers (Crawick and Cog Valleys) and the Mennock Valley; but otherwise effects would be cumulative and of sufficient scale to influence the strategic / regional wind farm pattern; as well as more localised interactions in relation to committed developments in and around Upper Nithsdale. From the DG receptors NLEI is seen to interact most closely with the Upper Nithsdale cluster (in combination and successively / by turning head).

3.5.2 Potential pattern of wind farm development; The Lowthers have recently become an area of high wind farm development interest. As well as NLEI, Harryburn (17 x 149.9m) is proposed occupying a range northeastern Lowther Hills between Glengonnar, the Elvan Water Valley and the Clyde Valley.

Harryburn would potentially extend the Clyde cluster westwards in to the central Lowthers. In addition NLEI would give rise to considerable cumulative landscape and visual effects on the Lowthers north of Lowther Hill and the local areas around Leadhills and Wanlockhead. NLEI would contribute the larger part of an enlarged development cluster taking in the Clyde and Nithsdale clusters, extending (at least) across a broad Southern Upland watershed arc between Carsphairn in the Ken Valley and the Tweed Valley. Apart from increased significant effects on local receptors, this would be give rise to significant strategic cumulative effects on the pattern of wind farm development; as well as loss of the northern section of the Lowther Hills as a landscape resource and asset for recreation and scenery. Appreciated in the Lowther Hill views, Harryburn and NLEI would dominate to northern outlook and interrupt the views to other summits, Tinto Hill, Cairn Table and Cairnkinna. The schemes would also impact on the drama and transitional qualities of the iconic scenic passes and long distance footpaths that pass through the hills between the Clyde and Nith valleys.

In either scenario of NLEI proceeding, with or without Harryburn, the Lowther Hills would be considerably reduced as a regional gap in the pattern of *cluster and space*, offering as it does, an attractive upland with respite from development.

3.4 Overview of landscape and visual effects

3.4.1 Overview of landscape effects; Based on the ZTV and pattern of receptors the main serious / significant landscape and cumulative landscape effects are anticipated to arise from NLEI with respect to:

- Strategic and cumulative landscape effects on the wind farm pattern: the strategic gap or space offered by the Lowthers.
- Direct landscape effects of the turbines and infrastructural elements on the integrity of the Lowther Hills as a regionally distinctive landscape tract of attractive open uplands; and appreciation of them in views from elevated viewpoints, and sequential from routes that pass through the hills.

- Direct landscape and at times cumulative effects on the landscape character and experience of the Lowther unit (LCT 19), and the Mennock unit (LCT 10).
- Indirect cumulative landscape effects on the landscape character and experience of the Upper Nithsdale unit (LCT 9).
- Direct and indirect landscape effects of the turbines, including setting issues, and effects on local distinctiveness: Wanlockhead and Leadhills mining villages and landscapes, and the Mennock Pass.
- Direct landscape effects of the turbines and infrastructural elements on the local landscape area of the Crawick Valley.
- Direct and indirect effects on the Thornhill Uplands RSA.

Section 4 details the anticipated significant landscape and cumulative landscape effects likely to arise from NLEI.

3.4.2 Overview of visual effects; Based on the ZTV and pattern of receptors the main serious / significant visual and cumulative visual effects from NLEI are anticipated to be concentrated within the 15km study area: across the Lowthers to the northwest of the Lowther Hill rdgeline (Green Lowther to East Mount Lowther); through most of Upper Nithsdale, excepting the valley floor east of Sanquhar; and the Nithsdale unit of the Southern Uplands (LCT 19) to the south. Within DG visibility is limited by the high Lowther Hill ridgeline to the southeast of the site, and by the Nith / Ken watershed to the southwest.

Potential visual effects are complex due to the high degree of intervisibility of the scheme to a large number of sensitive receptors (people), who would experience / see the scheme as a whole, or in its different parts from different geographical contexts.

There is also complexity in terms of cumulative visual effects, as whilst the Lowthers themselves remain free of Large wind farm development, there is a rapidly emerging pattern of wind farm development around them. There are still be some enclosed valleys, the Wanlockwater, Mennock and Crawick Valleys, where NLEI would introduce development; whilst elsewhere in Upper Nithsdale, the scheme would be seen as a substantial addition to an already heavily developed landscape context.

A number of foot and motor routes pass through the affected landscapes, including some of the most iconic mountain traverses and passes in DG of great scenic value, and one of the key tourist routes; sequential cumulative visual effects would be another visual effect.

Potential visual effects are grouped in to three main types, valley, elevated and sequential views, within which the magnitude of change would be similar, and receptors are similarly highly sensitive and can be broadly considered together:

- Visual effects for different groups of turbines for the valley receptors and views for the enclosed valleys of the Wanlockwater (turbines 20-27), Mennock (turbines 10-14), and Crawick Water (turbines 1-4):
 - Residents of Wanlockhead (and Leadhills), and the dispersed properties of the Crawick Valley (including Carco, Spoth, Nether Cog, Corsebank, Spangobridge)
 - Visitors to Wanlockhead (and Leadhills) mining heritage museum, sites and trails.
 - People recreating on foot, bike and horse, using the network of footpaths, core paths, and roads that follow the valleys and passes through the Lowthers.
 - Visitors for recreation, in particularly to the to the Mennock Pass but also the wider Lowther valleys, including wild campers, scenic drivers and motor tourers stopping for picnics and to enjoy surroundings, gold panners.
- Cumulative visual effects of turbines 1-14 for Upper Nithsdale for valley receptors and views:
 - Residents of the settlements of Sanquhar, Kelloholm, Kirkconnel, and Crawick.

- Residents of the dispersed properties of, including Auchentaggart and Sanquhar Moors, the Kirkland area, and properties of the 'back road' between Mennock and Kelloholm.
- Visitors to towns and tourist attractions most notably, Sanquhar main street and railway station, the golf course, and Crawick Multiverse.
- People recreating on foot, bike and horse, using the network of footpaths, core paths, the SUW, waymarked routes, heritage trails.
- Cumulative visual effects of the whole wind farm, in addition to clusters of development in Upper Nithsdale and Clyde, and potentially in-planning Harryburn, for elevated receptors and views for:
 - SUW and other hill walkers to Lowther Hill, and East Mount Lowther viewpoint.
 - Other visitors to Lowther and Green Lowther Hills, which is relatively accessible on foot for visitors from Wanlockhead by a metalled road, has a ski run, and is a destination for challenge cyclists.
 - Other SUW high points, most notably Glengaber and Conrig passes, Cloud Hill / Whing Head eastward descent.
 - Other high level viewpoints, such as RSA summit Cairnkinna, and Todholes Hill.
- Some visual effects from groups of NLEI turbines for SUW walkers through the more enclosed sections of the Cog Water Valley.
- Cumulative visual effects of particular groups of turbines for sequential receptors and views ie.for people on the move through Upper Nithsdale and the Lowthers, using the network of footpaths, core tracks, and specifically:
 - The SUW, complex range of visual effects from different valley and elevated stretches.
 - The B797 (turbines 10-14), including the iconic Mennock Pass.
 - The A76 key tourist route (turbines 1-14).
 - The B740 (turbines 1-4).

4 Landscape and cumulative landscape effects

The following set out the DGC assessment of landscape, visual and cumulative issues.

4.1 Strategic cumulative landscape effects

4.1.1 Cumulative landscape effects: wind farm pattern; Development of the NLEI scheme would extend development across the currently undeveloped Lowthers between the emerging Upper Nithsdale and Clyde clusters of wind farm development. This existing development currently identifies with less sensitive uplands to the west, north and east. The pattern of development and the contrast and respite offered by the Lowther Hills can be appreciated from Lowther Hill (VP 6), sequentially from the numerous passes that connect east to west across the uplands, and Upper Nithsdale from the valley (VPs 10, 16) and surrounding vantage points (VPs 15, 17).

NLEI would occupy an existing strategic *gap* in development, and would be:

- At odds with the more sensitive and regionally distinctive landscape of the Lowther Hills; including the High sensitivity landscape character areas of the Lowthers unit LCT 19, and Mennock unit LCT 10.
- In to close proximity with a highly sensitive local landscape area around Wanlockhead, and Leadhills.
- Potentially in addition to Harryburn in neighbouring South Lanarkshire, whereby cumulative landscape effects with respect to wind farm pattern would be intensified in relation to the wider Lowthers and local Wanlockhead / Leadhills areas.

4.2 Landscape and cumulative landscape effects: landscape character

4.2.1 LCT 19 Lowthers unit; NLEI Windfarm would extend development across the northwest sector of the Lowther Hills, between Wanlockhead, Mennock, Sanquhar, and Spango Bridge; bounded by the Mennock Valley, Nithsdale, the Carwick Valley and the DG border with SL between Spango Bridge and Wanlockhead. This tract of uplands is currently undeveloped by wind turbines and is a typical / good example of the Lowthers unit / Rugged Southern Uplands (LCT 19) characteristics, where *'high hills with an often dramatic sculptural landform ... (forming) steep rugged edges to adjacent dales and upland glens'* (DGWLCS, p.337) remain the defining characteristics of the area.

NLEI would give rise to:

- Significant landscape effects on the northern sector of the Lowther unit (LCT 19), such that it becomes a *'wind farm landscape'* (SNH: *wind farm development as a defining characteristic*).
- There would be some locally significant effects on the landscape areas around the Wanlockhead and the Wanlockwater Valley, where turbine development would become a *key / defining characteristic*.
- There would be some locally significant effects on the landscape areas around the Crawick Valley, where wind farm development of turbines and associated infrastructure of tracks and compound would become a *key characteristic*.
- The Lowther Hills provides the setting and backdrop for the Mennock Valley. See landscape effects on LCT 10, 1.2.3.
- The northern section of the Lowther Hills provides the setting and backdrop for Upper Nithsdale. See indirect landscape effects on LCT 9, 1.2.5.

The influence of wind farms would represent a sea change in landscape character, such that this landscape unit would lose its distinctiveness compared to the wind farm influenced uplands to the south and west of Upper Nithsdale (also LCT 19); a level of change considered inappropriate given the high sensitivity and designated value of the landscape.

4.2.2 LCT 10 Mennock unit; NLEI Windfarm would extend development over the Brown Hill to White Dod ridgeline between Glendyne and the Mennock Valley, including turbine 12 within LCT 10, and turbines 10, 11, 13 and 14 in neighbouring LCT 19 Lowthers unit, but in close proximity and the immediate setting of LCT 10, giving rise to direct and indirect effects. The Mennock Pass is one of the most notable of Upland Glen (LCT 10) and is an exemplar in terms of characteristics: *narrow high sided valley with a high degree of enclosure contained by steep sides rising to form irregular ridgelines, sinuous shape, narrow river flats, relatively small scale landscape.*(DGWLCS, p.150)

Turbines 11, 12 and 13 would appear on or just beyond the valley edge, appearing out of scale and overbearing, diminishing the drama and focus on the steep glen sides, cliff and scree, and detracting from the scenic quality. There would be significant landscape effects on approximately half of the Mennock unit (LCT 10), such that wind farm development becomes a *key characteristic*.

This level of change would give rise to significant landscape effects given the High sensitivity of LCT 10 to Large typologies, and the High-medium landscape value, based on RSA designation and also recreational use. The DGWLCS states there would be no scope for development of turbines exceeding 20m, and stresses the sensitivity to developments *'sited in surrounding uplands and seen on prominent skylines which may be seen successively or appear to surround the area...'*. (DGWLCS, p.149) See 2.2.2.

4.2.3 LCT 9 Upper Nithsdale unit; NLEI Windfarm in itself, and in addition to the committed wind farm development over the uplands to the west and south of Upper Nithsdale would give rise to significant indirect landscape effects on the upper valley west of Mennock. The upper dale is currently undeveloped by wind turbines to the east: *‘There is clear intervisibility between the dales and these surrounding hills, where the uplands are gently sloped, they provide a large scale context and visual backdrop to the upper dale. The Southern Uplands (19) are more steeply sloping and dramatic to the south-east’.* (DGWLCS, p.138, Landscape context) These uplands are important as they will offer respite as committed development across and up the valley is built out.

The addition of NLEI would give rise to:

- Wind farm development as a *defining characteristic* of the upland backdrop and immediate setting either side of the valley. NLEI would occupy a large proportion of remaining open uplands.
- Development on the immediate valley backdrop skyline, along with Sandy Knowe, which extends across the valley, would mean that some areas of the valley would also become a *‘wind farm landscape’.*
- From across the valley the wind farm would be seen occupying the uplands and detracting from the setting of Sanquhar, and the Mennock and Glendyne Valleys.

The additional influence of wind farm development from NLEI would be such as to surround the valley, so that this landscape unit would be overwhelmed by development. This level of change is considered inappropriate given the High sensitivity of LCT 9 Upper Nithsdale unit to Large typologies, and the density of highly sensitive visual receptors across the settled valley (VPs 8, 9, 10, 16), particularly residents. See 5.1.4

4.3 Landscape designation and landscape value

4.3.1 Landscape designation; The shift in landscape character arising from NLEI Windfarm, and associated adverse effects of views and visual amenity would detract from the scenic quality of the northwest and central sections of the Lowther Hills. In terms of the Thornhill Uplands RSA, the majority of the wind farm (Ts 2-14, 17-21, and 32-35) lies within the RSA, and effects would be direct and visual, and judged to be significant. The Thornhill RSA takes in the southern section of the Lowther unit (LCT19), *‘...where characteristics of landscape type are most strongly represented, including particularly strong sculptural reliefand where landscape types are scenically juxtaposed with deep, steep sided valleys’;* and also, *‘...all upland glens in Upper Nithsdale where they contrast dramatically with the adjacent southern Uplands..’* (DGC RSA Tech. Paper).

It is considered the designation would be undermined by NLEI:

- The direct impacts on the northern section of the Lowther Hills, which is a large size, and a significant proportion of the RSA.
- There would be significant effects on the landscape character of LCT 19 Lowthers unit and LCT 10 Mennock unit, both of which underpin aspects of the RSA designation.
- The scheme would impact on some of the most iconic local landscapes within the designated area: Wanlockhead, the Mennock Pass.
- The area has further significant indirect and visual effects on other RSA areas, such as Auchentaggart Moor (VP 8) and Lowther Hill (VP 6).

It is judged that NLEI would significantly undermine the special qualities that underlie the designation relating to the Lowther unit (LCT 19) and the Mennock unit (LCT 10), as set out above.

4.3.2 Landscape value; Apart from the designated

- Wanlockhead historic mining village and landscape (and Leadhills).
- The Mennock Pass.
- Lowther Hill.

There would be also be significant effects on other undesignated landscapes, but of recreational value, including:

- The SUW across Whing Head (VP 17) and Upper Nithsdale,
- Sanquhar Golf Course (VP 9)
- Crawick Multiverse Park (VP10).

These are largely dealt with as visual effects. See section 5.

5 Visual and cumulative visual effects

5.1 Valley receptors / views

5.1.1 Visual effects: views for residents and visitors from the Wanlockhead area; NLEI would introduce turbines to views from the enclosed Wanlockhead area for residents, and for visitors to the heritage sites and trails. To varying degrees, but overall significant, turbines in short range views would be highly intrusive to the valley setting from Wanlockhead village and mining heritage assets (VPs 2 and 3), particularly in views from the elevated village edge viewpoint (VP 4). The rotars of turbines (20, 21, 26, 27) would be seen as perceptibly large and incongruous flicking over the side of the Wanlock Water Valley; and from higher elevations turbines (22, 24, 25 30, 31, and the rotar of turbine 23) would be in the focus of down-valley views.

This level of change is considered inappropriate given the high value and local distinctiveness of Wanlockhead and the associated Wanlockwater Valley, as a historic Lowthers Hills mining village, and important component of the wider unique *upland mining* character, shared with Leadhills; as well as being RSA designated. Turbines would be incongruous where the strong sense of place and local distinctiveness relies on the coherent visual character and qualities of the place, which would be especially sensitive to this level of intrusion.

5.3.1 Visual effects: views for visitors and motor tourers from the Mennock Pass; NLEI would introduce turbines to views from the enclosed Mennock Pass (VP 7) between Glenim Cottage and Moor End. Turbines 11, 12, and 13 would appear out of scale and overbearing on the sensitive skyline summits of White Dodd, Wether Hill and Starn Capel; and in close proximity to important features, such as Auchengruith Crag, the sheepfold to the foot of Beer Burn, Shiel Cleauch and Nether Shiel Cleuch, detracting from the scenery.

This level of change is considered inappropriate given the high value and iconic status of the Mennock Pass as a Lowthers route, its importance as part of the sequence of approach and arrival for Wanlockhead historic mining village, and the importance of the upland glen as a component of the designated RSA scenery. Turbines would be incongruous where the strong sense of place and local distinctiveness relies on simple but powerful visual character and qualities of the place, which would be especially sensitive to the intrusion of vertical structures with moving rotars on the skyline.

5.1.3 Visual effects: residents of the Crawick Valley and travellers along the B740; NLEI would introduce turbines, and also development of the associated infrastructure of access points A and B, and construction compounds 1 and 2, to views from the enclosed Crawick Valley between Crawick and Spango Bridge. Turbines 1, 2, 3 and 4 would intrude

to a significant degree on the valley near Corsebank, locally overwhelming the scale and visual amenity (and landscape character) of the upland Lowthers valley. Access track B would be a significant detractor from the open shoulder of The Dod, as would construction compound 2 (VP11).

This level of change is considered inappropriate given the high sensitivity of Crawick Valley, as a smaller scale area of local landscape, and where the significant visual effects of both turbines and infrastructure would be avoidable.

5.1.4 Cumulative visual effects: residents and visitors of Upper Nithsdale; NLEI would detract from views along and across the valley and general visual amenity for residents, visitors, travellers on the A76 key tourist route, walkers, cyclists and other people recreating in Upper Nithsdale. See also 1.2.5.

- Where turbines are seen at / near full height they would significantly detract from the general visual amenity of the valley: in most views the southern turbines (Ts 1-14) would appear as a continuous array; the turbines diminish the scale and 'flatten' the form of valley edge landform; the extent of the windfarm seen along 3-4km of the valley side; and at short range to sensitive valley receptors.
- The blades cause less significant impacts but would appear incongruous and intensify effects.
- In addition to the committed wind farm development over the uplands to the west and north of Upper Nithsdale, the NLEI turbines would occupy a large proportion of remaining open uplands, and appear to surround the valley, at times overwhelming such as from Auchentaggart Moor (VP 8), dominant where the turbines are seen directly on the valley edge such as Kelloholm (VP 16) and the Crawick Multiverse (VP 10), and at least as a disturbing skyline features (VP 9).

This level of change is considered inappropriate given the existing level of development and importance of the Lowthers backdrop in offering visual respite to this, and the sensitivity of the settled valley in terms of the high density of visual receptors (VPs 8, 9, 10, 16).

5.2 Elevated receptors / views

5.2.1 Cumulative visual effects, Lowther Hill and associated ridgeline; The Lowther Hill ridgeline between Green Lowther and East Mount Lowther. NLEI Windfarm would detract from the quality of views, extent of outlook, and visual amenity appreciated by SUW and other hill walkers, to a significant degree. Lowther Hill has a special status as the highest point on the SUW, and is also one of the key Thornhill Uplands RSA viewpoints. As such the views are particularly sensitive to change. From the Lowther Hill / Green Lowther ridgeline (VP 6), the NLEI site currently provides separation from wind farm development further northwest around Upper Nithsdale and northwards in to South Lanarkshire, and which offers a marked contrast and visual respite from the Clyde views to the east. The extensive area of distinctively rounded summit ridgelines is particularly scenic, with focused visual interest provided by the dramatic Mennock landforms and villages of Wanlockhead and Leadhills. Vantage points along the Green Lowther / East Mount Lowther ridgeline provide striking long views and panoramas.

From Lowther Hill visual effects would be cumulative, with NLEI forming a near continuous band of development in the foreground and middle distance, which would be seen in combination with the clusters of development emerging in the west / northwest of Nithsdale, and north / northeast / east in South Lanarkshire and the Borders. This would consolidate the existing more open pattern, and bring development much closer in to this key viewpoint for SUW and other hill walkers. NLEI would detract from shorter-range views to the

Mennock valley and villages; and dominate the long range views to the northwest to Cairn Table, and at much longer range Arran and the Paps of Jura.

Specific turbines would have the following effects:

- Turbine 14 is visually dominant, as at short range it is appreciated with no set back behind landform at full height, and turbines 9, 10, 12 and 13 are also perceptibly out of scale with the foreground landscape. This group of turbines is overwhelming to the setting of the Mennock Valley, and disrupts the scenic composition.
- Turbines 32-35 are most problematic with respect to the setting of Wanlockhead; and would appear outlying from the rest of the scheme, particularly discordant, giving rise to significant visual effects in relation to wind farm image and design.
- Turbines 5-9, and turbines 20, with 25-27 are viewed at such an orientation that the layout appears congested, with stacking and overlapping further compromising the wind farm image.

This level of change is considered inappropriate given the high landscape value, designated and popularly recognised, of Lowther Hill and associated ridgeline as a visual asset.

5.2.2 Cumulative visual effects, Lowther Hill and associated ridgeline;

SUW: between Lowther Hill and the Wanlockwater Valley.

From the elevated stretch of the SUW over Lowther Hill NLEI would be seen as a whole in the context of a wider development pattern. Descending in to the Wanlockwater Valley from either Stake Hill to the southeast or Glengaber pass to the northwest, the turbine groups to either side will at times become prominent. The valley is currently undeveloped and the turbines would be a significant intrusion to views and visual amenity:

- From above Wanlockhead (VP 4) the blades and at times rotors of turbines 19-31 will appear along the western skyline and back-dropped by Cairntable.
- Descending from Glengaber pass (VP 1) turbines 20 and 21 would be seen partially but at close quarters (<1km), turbines 22-24 and 30 would be seen along the valley side and back-dropped by distant developed uplands, and turbines 32-35 would skyline at full height over Slough and Reecleuch Hills,

SUW: between Conrig Shoulder and Glengaber pass.

From the secluded stretch of the SUW between Conrig Shoulder and Glengaber pass the NLEI scheme would introduce wind farm development: NLEI turbines would detract significantly from views and the visual amenity of the SUW between Conrig Hill shoulder and Glengaber pass, with turbines 2-9 and 16-20 closing in surrounding skylines from the southern route crossing the secluded head of the Cog Valley, and turbines 15 – 28 surrounding the northern loop at close quarters. (See sequential wirelines / visualisations Vol. II, Part 3)

Approaching and from the passes around the Cog Valley other wind farms come in to view and effects would be cumulative, although with NLEI the most prominent influence:

- At short range ascending to Coupland Knowe, turbines 4 and 5 would be dominant to overwhelming around the pass, where the 150m turbines would be elevated above the route by approximately 40m (T5), and at close 150m (T5) to 300m (T4) proximity.
- From Glengaber pass (VP 1) turbines 20, 21, 25-29 would appear congested, giving rise to stacking and overlapping; and the wide arc of turbines from Conrig Hill to Willowgrain Hill (Ts1-9) would close off the longer range views to Nithsdale and the onward SUW route across Cloud Hill.

SUW: between Whing Head and Sanquhar. The NLEI scheme overall would dominate the SUW outlook at medium range descending from Cloud Hill across Whing Head to Sanquhar

(VP 17) detracting from, the high quality scenery of the RSA and associated views, the setting of Sanquhar, and the drama of the Mennock and Glendyne Valleys.

These levels of change to the SUW are considered inappropriate given the high magnitude of change over such a long (2-3 day) stretch of the route, which includes the locally distinctive Wanlockhead mining village and landscape, the highest point of Lowther Hill and a number of important hill traverses. The section of the SUW between Sanquhar and Lowther Hill remains relatively unaffected by wind farm development, and continues to offer the experience crossing the Lowther Hills as an exemplar of Southern Upland landscapes

5.3 Sequential receptors / views

5.1.3 Cumulative sequential visual effects: A76, B797 and SUW; Development of NLEI would be a landscape feature that would compromise the apparent extent of the Lowther Hills as an undeveloped tract of upland landscape, offering respite from wind farms, as appreciated sequentially from the A76 through Upper Nithsdale, and from the passes and footpaths crossing the Lowthers.

NLEI would give rise to a variety of significant visual effects along the routes, and also sequentially with respect to dynamic and often dramatically unfolding views, and specific transitions and contrasts in character and outlook. Of particular concern to DG:

- A76 key tourist route DGC approach and between the regional border and Sanquhar (closest proxies VPs 9 and 16). See also 5.1.4
- Between Mennock and Wanlockhead on the B797 through the Mennock Pass (VP7). See also 5.1.2
- Between Crawick and Spango Bridge (VPs 11 and 12) on the B740. See also 5.1.2
- Walking the SUW between Lowther Hill and Whing Head (VPs 1, 4, 6, 9, 17). See also 5.2.2