

# **EUCHANHEAD RENEWABLE ENERGY DEVELOPMENT**

Technical Appendix 7.8: Residential Visual Amenity Assessment (RVAA)

10/2020





## A.1 Introduction

## **Background**

A.1.1 This Residential Visual Amenity Assessment (RVAA) has been prepared by Stephenson Halliday in accordance with Landscape Institute Technical Guidance Note 2/19: Residential Visual Amenity Assessment (15 March 2019). The Technical Guidance Note (TGN) identifies that:

"The purpose of carrying out a Residential Visual Amenity Assessment (RVAA) is to form a judgement, to assist decision makers, on whether a proposed development is likely to change the visual amenity of a residential property to such an extent that it becomes a matter of 'Residential Amenity'."

#### A.1.2 It further notes that:

"Changes in views and visual amenity are considered in the planning process. In respect of private views and visual amenity, it is widely known that, no one has 'a right to a view.' ...

It is not uncommon for significant adverse effects on views and visual amenity to be experienced by people at their place of residence as a result of introducing a new development into the landscape. In itself this does not necessarily cause particular planning concern. However, there are situations where the effect on the outlook / visual amenity of a residential property is so great that it is not generally considered to be in the public interest to permit such conditions to occur where they did not exist before."

- A.1.3 This assessment considers only what the resident may see from a property. Views or 'visual amenity' are just one component of residential amenity and the two should not be confused. The latter is a planning matter and may also include aspects such as noise, air quality and traffic in addition to residential visual amenity. RVAA does not consider or provide information on other aspects of residential amenity and it is for decision makers to weigh all these aspects, and documents/assessments relating to them, in determining the acceptability of a proposal.
- A.1.4 Residential amenity is discussed within section 7.6 of the Planning Statement accompanying the application for the proposed development.
- A.1.5 This assessment, and the process of RVAA, seeks to identify where effects on residential visual amenity are of such a nature or magnitude that they may need to be considered in the overall balance of 'Residential Amenity' or 'Living Conditions'. The point at which this happens is referred to as the Residential Visual Amenity Threshold.

## A.2 Approach

- A.2.1 TGN 2/19 advocates a four step process to RVAA with the first three falling broadly within the scope of LVIA where the magnitude and significance of visual effects is assessed.
- A.2.2 The fourth step involves a further assessment of the change to visual amenity of individual properties identified as "having the greatest magnitude of change" and identifying whether the RVA threshold is reached.

## Methodology

## Study Area and Initial Assessment

- A.2.3 There are no standard criteria for defining the RVAA study area and this is determined on a case by case basis. The guidance note identifies that for large structures, such as wind turbines, a preliminary study area of 1.5-2 km radius may be appropriate to begin identifying properties for inclusion within RVAA, but for other developments the study area would be much reduced in proportion to their size.
- A.2.4 Dumfries and Galloway Supplementary Guidance on Wind Energy Development (February 2020) notes that residential visual amenity assessment should be undertaken in line with best practice guidance. It also notes, however, that residential study areas may extend up to 5 km from a development site. In this case, a study area of approximately 5 km from the proposed turbines has been considered given the scale of the proposed turbines, their elevated position relative to valley side and bottom properties and the extent of existing development in the vicinity.
- A.2.5 Within the RVAA study area all residential properties are identified. An initial appraisal is undertaken to identify those properties likely to experience the greatest effects, therefore requiring further detailed assessment, and those where effects would be less and unlikely to approach the RVA threshold. This process may draw on the findings of the LVIA as a starting point and is supplemented by other tools including ZTV maps, wireframes and field work.

#### **Further Detailed Assessment**

- A.2.6 For those properties that have been identified at the initial stage as requiring further detailed assessment the process involves the following key stages:
  - Evaluation of baseline visual amenity;
  - Assessment of likely change to the visual amenity of properties; and
  - Forming the RVAA judgement.
- A.2.7 Properties are usually assessed individually but may be considered in groups where their outlook or views are essentially the same; for example, a row of houses that all share an open outlook towards the site. Where properties are grouped for assessment this will be clearly identified and reasons for grouping described.

## **Baseline Visual Amenity**

- A.2.8 The existing baseline visual amenity is described for each property and is informed by desk study and field work. Site visits to all individual properties included within the detailed assessment are undertaken where access can be agreed with property owners. Where access is not possible this step is informed by visits to nearby publicly accessible areas. Visual amenity is described 'in the round' and considers both views from the dwelling itself, the domestic curtilage and views experienced when arriving or leaving the property.
- A.2.9 It has been noted where the owners of a dwelling have a financial involvement in the project; however, all properties have been treated equally in terms of the potential effects upon residential visual amenity.



## Likely Change to Visual Amenity

The change to baseline views and visual amenity as a result of the proposed Development is described for each property and a judgement on the magnitude of effects likely to be experienced is provided. This may involve consideration of the following factors:

- Distance between the property and proposed development and their relative locations (e.g. up/down hill);
- Nature of available views (e.g. panoramic, enclosed) and the effect of daily or seasonal variations;
- Direction of view or aspect of property affected;
- Extent to which the proposed development may be visible from various parts of the property (e.g. dwelling, rooms, access, garden);
- Scale of change to views, including the proportion of view occupied by the proposed development;
- Compositional changes (e.g. loss/addition of landscape features such as woodland);
- Contrast or integration of new features with the existing views;
- Duration and nature of changes (e.g. temporary/permanent, intermittent/continuous);
- Mitigation opportunities;
- Night-time impacts if the proposed development includes lighting.
- A.2.10 Lighting would tend to be most notable from external areas of a property where external lighting is switched off or not present. Internally, the lights are only likely to be noticed in rooms where curtains and blinds are not in use and lights are switched off. If room lights are switched on then reflection of these in the dark windows would largely obscure external views. Embedded mitigation in included within the judgement. Any additional mitigation is noted separately.
- A.2.11 This stage may be supported by a range of visual aids as required including maps, ZTV studies, photography and visualisations. The choice of visual aids is determined on a case by case basis and may be informed by consultation. In line with best practice guidance the type of visualisation should be proportionate to the nature of the proposed development and assessment stage.

### **RVAA Judgement**

A.2.12 This final stage is concerned with identifying "whether the predicted effects on visual amenity and views at the property are such that it has reached the Residential Visual Amenity Threshold, therefore potentially becoming a matter of Residential Amenity". This is the key concern of RVAA and judgements on the RVA threshold are set out clearly and unambiguously.

#### Cumulative

A.2.13 RVAA is undertaken against the baseline, as described in the accompanying LVIA. As stated in the TGN, future cumulative visual effects are not generally assessed within the RVAA, as the focus of the RVAA is on the existing visual amenity. In this case a number of other nearby developments are in very close proximity to the proposed Development and may have a notable influence on the RVAA. Wireline visualisations include the same cumulative schemes as those shown at LVIA viewpoints and additional commentary on potential cumulative

schemes is provided where it is judged that these may have a notable influence on residential visual amenity. It should be noted that if the proposed Sanquhar II were to be built, then the consented Sanquhar 6 would be withdrawn and therefore both would not be visible.

A.2.14 This assessment also considers the effects of forestry removal as much of the existing forestry within the RVAA study area is likely to be felled in the short to medium term or during the lifetime of the proposed Development.

### **Distances/Directions**

- A.2.15 Where distances and directions are given within the assessment, these are distances between the nearest part of the property (including the domestic curtilage) and the nearest turbine, unless explicitly stated otherwise. Distances given are rounded to the nearest 10m to account for the level of accuracy available in techniques used to measure (usually based on aerial photography within a GIS).
- A.2.16 Distances quoted refer to turbine positions as set out in Chapter 3: Proposed Development, proposed turbine micro-siting allowances are considered within the assessment text where they may be of relevance to a particular property.



## A.3 Assessment

## Introduction

A.3.1 Figure 1 (see page 7) identifies all residential properties included within the RVAA. In total there are 24 properties (three of which are considered as a group) considered within the RVAA, two of these are known to be unoccupied and a number of others appear to be abandoned or not in regular residential use, as set out in Table A.3.1. In addition to these, there is a bothy located within the central part of the proposed Development site although this is not a residential property and is not considered within this assessment.

## **Initial Assessment**

- A.3.2 An initial assessment has been undertaken in order to identify those properties with the highest magnitude of change where there is potential for the RVA threshold to be reached. This is supported by the ZTV in Figure 1, wireline visualisations located within Annex 1 of this document and site visits undertaken to assess views from individual properties.
- A.3.3 In respect of proposed aviation lighting, as illustrated on wirelines, lights would tend to be most notable from external areas of a property where external lighting is switched off or not present. Internally, the turbine lights are only likely to be noticed in rooms where curtains and blinds are not in use and lights are switched off. If room lights are switched on then reflection of these in the dark windows would largely obscure external views.
- A.3.4 Where it is identified that effects at properties have the potential to reach the RVA threshold this is identified and further detailed assessment is provided on individual property assessment sheets in the following section.

#### **Construction Phase**

- A.3.5 The most notable construction stage effects would arise from visibility of cranes during the final erection of turbines. This would be a short-term activity and the scale of change arising would be no greater than that of the operational Development.
- A.3.6 Proposed access route A, borrow pits, laydown areas, construction compounds and associated lighting of these elements would all be located away from residential properties considered within this assessment. There would be no notable visibility of these elements and they would have little or no impact on residential visual amenity.
- A.3.7 Proposed access route B would involve upgrading the existing forestry track immediately north of P5 Euchanbank and P8 Glenglass at the end of Blackaddie Road. There would be a temporary security compound located here, approximately 150 m away from each of the properties, including gates, fencing, a temporary portacabin type building and associated lighting, if this route was used. The two properties would gain some short-term views of the security compound which would be partially screened or filtered through garden vegetation and other existing vegetation adjacent to the track. There would also be a noticeable increase in traffic, most notably at the beginning and end of the working. Further detail relating to potential traffic movements and impact is included within Chapter 12: Traffic and Access. These properties would experience no greater than a Moderate/slight magnitude of change to their residential visual amenity as a result of construction phase activities which would result in a Moderate level of effect.

## **Operational Phase**

A.3.8 The initial assessment is provided in Table A.3.1.

#### Table A.3.1 Initial Assessment

Ref	Property	Comments	Magnitude of Change	Level of Effect
21	Polskeoch	This property is under control of the applicant. Should consent be granted it would be taken out of residential use and therefore it is not considered further within this assessment.	N/A	N/A
22	Lorg Cottage	This property is not currently in residential use and is under control of the consented Lorg wind farm applicant and would remain empty for the operational life of this windfarm, as confirmed by information submitted in support of the application for the consented Lorg wind farm.  The property is located 1.02 km south west of turbine 11. It is a small, single storey building with main elevations facing south west / north east. The southern end of the main building comprises a barn attached to the main house and there is a further outbuilding set amongst trees to the west of the main house. The majority of the proposed Development would be screened from view by intervening landform although the closest turbines, 9-11, would appear at close proximity above the hilltop to the rear of the property – including hub mounted aviation lights on T9 and T10. Further detailed assessment is provided on an individual property assessment sheet.	Substantial	Major



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Ref	Property	Comments	Magnitude of Change	Level of Effect
P3	Shinnelhead	This property comprises a 1.5 storey house and a number of barns and outbuildings, located 1.95 km east of turbine 21. The property is set amongst mature trees with the main elevations of the house oriented broadly north/south and no windows on the gable end elevation oriented towards the proposed Development. Some more open views are available from parts of the gardens and around outbuildings where turbines would be seen, including some of the proposed aviation lights, along the top of the Shinnel Glen.  Although the property would not experience the greatest magnitude effects and they would not approach the RVA threshold, concerns were raised by residents through the consultation process. Therefore, a detailed assessment is provided on an individual property assessment sheet on a precautionary basis.	Moderate	Major/ Moderate
P4	Cairnhead	This property is located 2.02 km south of turbine 20, it is in a dilapidated state and not presently inhabitable. Rising ground and dense woodland immediately to the north of the property largely obscure views towards the proposed Development. As illustrated by the ZTV and wireline, there would be no visibility of the proposed Development from here. Excluded from detailed assessment.	Negligible	Negligible

Ref	Property	Comments	Magnitude of Change	Level of Effect
P5	Euchanbank	This property is located 2.12 km east of turbine 1. Forestry on hillsides immediately to the west has recently been felled although evergreen trees within the garden provide some enclosure. The house is oriented with main elevations facing broadly north/south with a gable end facing towards the site. The wireline illustrates turbine 1 would be openly visible, including aviation lights, along with blades of turbine 2. These views would be possible from the track approaching the house and some parts of the garden. Oblique views from some windows may also be possible.  Although the two visible turbines would be a notable addition to views, these would be relatively constrained and effects would not be so great that they would approach the RVA threshold. Excluded from detailed assessment.	Moderate	Major/ Moderate
P6	Dalgonar	This single storey dwelling is situated 1.84 km north of turbine 13. It occupies an elevated position above the road on the northern side of the Scaur Water valley and is set amongst mature gardens including large trees and shrubs. There are a number of outbuildings to the east and west of the main house. As illustrated by the wirelines, there would be oblique, cross valley views of the nearest turbines, including some aviation lights, from some south facing windows and part of the gardens and along valley views, albeit partially screened by intervening forestry, of further turbines to the west from parts of the garden and west facing windows. Further detailed assessment is provided on an individual property assessment sheet.  It is noted that this property is under control of the Sanquhar II applicant and should that be consented the house would be removed from residential use for the duration.	Substantial	Major
P7	Hillend	The property is situated 2.39 km north of turbine 1 and is entirely outside of the ZTV. As illustrated by this and the wirelines, there would be no views of the proposed Development from this property. Excluded from detailed assessment.	Negligible	Minor



Ref	Property	Comments	Magnitude of Change	Level of Effect
P8	Glenglass	This property is located 2.40 km east of turbine 1 and does not appear to be occupied at present; windows are blacked out and overgrown garden vegetation is encroaching on the building. A small block of woodland, including evergreen species, to the west of the house would entirely screen views of proposed turbines from the property although two turbines, including aviation lights, would be seen on the track approaching the house.  Effects at this property would be very limited and would not approach the RVA threshold. Excluded from detailed assessment.	Slight	Moderate
P9	Blairoch	This 1.5 storey property is located in valley bottom, 2.50 km south of turbine 21. Rising ground, garden vegetation and forestry to the north largely screens views towards the proposed Development although the ZTV indicates some limited visibility of a single blade tip from the western end of the garden and rear elevation of the house. In reality this is likely to be screened by garden vegetation and forestry.  Effects at this property would be very limited and would not approach the RVA threshold. Excluded from detailed assessment.	Negligible	Minor
P10	Benbuie	This 1.5 storey property is located in a valley bottom, 2.90 km south of turbine 21. It is set within mature gardens with extensive tree cover and there is a large outbuilding situated to the north of the main house. The wirelines show that the blades of turbines 19 and 20 would be partially visible from here. Views are most likely from the more open western side of the garden and upper storey windows on the north facing façade although garden vegetation, the outbuilding and intervening forestry would provide considerable screening.  Effects at this property would be very limited and would not approach the RVA threshold. Excluded from detailed assessment.	Negligible	Minor

Ref	Property	Comments	Magnitude of Change	Level of Effect
P11	Upper Holm of Dalquhairn	This 1.5 storey property is located 3.05 km south west of turbine 11. It is surrounded by mature trees and there is an extensive area of young forestry immediately to the north and northeast. Garden vegetation is somewhat overgrown and the track approaching the property does not appear to be in regular use, it is unclear if it is currently inhabited. Wirelines indicate the hub, including aviation light, of turbine 17 and the blade tip of turbine 14 may be visible over intervening landform to the east although in reality these are likely to be screened by garden vegetation and the maturing forestry in this direction.  Effects at this property would be very limited and would not approach the RVA threshold. Excluded from detailed assessment.	Negligible	Minor
P12	Nether Holm of Dalquhairn	This property is situated 3.31 km south west of turbine 11 and comprises a 1.5 storey house set amongst extensive outbuildings. There is a small area of woodland to the north east of the main house, limiting views in this direction, and the main elevation and garden area of the house look south, along the valley of the Water of Ken and away from the proposed Development.  Wirelines indicate that the hub of turbine 17 is likely to be visible in cross valley views, including aviation light, from the eastern elevations of the house and parts of the garden and driveway. Two further blade tips are also potentially visible in this part of the view although in reality are likely to be screened by nearby forestry. The blades of turbine 11 are also theoretically visible in views north although this is likely to be entirely screened by the small area of woodland adjacent to the property as well as outbuildings.  Although one turbine may be relatively prominent in some views from here, effects would not be so great that they would approach the RVA threshold. Excluded from detailed assessment.	Moderate/ Slight	Moderate



Ref	Property	Comments	Magnitude	Level of
			of Change	Effect
P13	Craigythorn	This is a relatively newly constructed 1.5 storey property located 3.80 km south west of turbine 19. It is set within an open plot with main elevation oriented eastwest and taking in views across the valley of the Water of Ken and a large outbuilding to the north of the main house. The wirelines indicate that a group of 6 turbines (turbines 6-11) would be quite openly visible, including aviation lights on five of these, along the valley to the north at 4.18 km or more. The northern façade of the main house is primarily a gable end with no windows although there are likely to be views of this group from a single set of patio doors on a return wall facing north and the rear garden. Views from the front garden and driveway would be screened by the outbuilding.  The group of turbines would be a notable new feature in views along the valley to the north although they would be relatively distant and only seen from limited parts of this property. Effects would not be so great that they would approach the RVA threshold. Excluded from detailed assessment.	Moderate	Major/ Moderate
P14	Craigdarroch (Group)	This is a small group of three single and 1.5 storey residential properties with outbuildings located in a relatively open valley bottom to the north of Afton Reservoir. As illustrated by the ZTV and wirelines only one blade tip, turbine 9, is potentially visible from here due to the sharply rising landform of hills to the south and east that lie between this group and the proposed development.  Effects on this group would be very limited and would not approach the RVA threshold. Excluded from detailed assessment.	Negligible	Minor

Ref	Property	Comments	Magnitude of Change	Level of Effect
P15	Corlae	This property comprises an original 1.5 storey farmhouse to the west of the unclassified road running up the valley and converted byres to the east of the road that appear to be in use as two holiday lets. The property is located approximately 100 m south of P13 Craigythorn and 3.83 km south west of turbine 19. The main house and byres are oriented with the main elevations looking east-west across the valley of the Water of Ken and are surrounded by mature trees and garden vegetation.  The wirelines indicate that a group of 6 turbines (turbines 6-11) would be quite openly visible, including aviation lights, along the valley to the north at 4.32 km or more although garden vegetation is likely to heavily filter or screen views of turbines from the buildings and gardens.  Effects on this group would be limited and would not approach the RVA threshold. Excluded from detailed assessment.	Negligible	Minor
P16	High Appin	This 1.5-2 storey dwelling with outbuildings is located 4.10 km south east of turbine 21. There are a number of mature trees in gardens surrounding the property and the main elevations of the house are oriented north east / south west to look up the valley of the Appin Burn and down Shinnel Glen. The wirelines indicate that hubs of three turbines (19-21), including aviation lights, would be visible at the head of the Appin Burn valley, contained by the landform to either side. These would be seen from the main parking area at the house and in direct views from windows on the north west elevation although young forestry along the valley side would provide some screening which would increase as the forestry matures.  The three turbines would be a notable new feature in views along the Appin Burn valley although they would be relatively distant and only seen from limited parts of this property. Effects would not be so great that they would approach the RVA threshold. Excluded from detailed assessment	Moderate/ Slight	Moderate



Ref	Property	Comments	Magnitude of Change	Level of Effect
P17	Polgown	This property is located 4.10 km east of turbine 8. The main elevation of the house is oriented along the valley in the opposite direction to the site. Localised landform to the immediate west of the house, along with garden vegetation, would almost entirely screen views of proposed turbines although views of some blade tips may be possible from upper storey windows to the rear of the house.  It should be noted that the localised landform is not accurately reflected in the digital topographic model used to generate the wirelines. As a result, the wireline for this property illustrates an open view of turbines that would not occur in reality.  It is noted that this property is under control of the Sanguhar II applicant and	Slight	Moderate
		should that be consented the house would be removed from residential use for the duration.		
P18	Euchan Filter Station House	There are two properties here, located either side of the road; a cottage and a converted waterworks building. These are situated 4.53 km north of turbine 1 and entirely outside of the ZTV. As illustrated by this and the wirelines, there would be no views of the proposed Development from these properties. Excluded from detailed assessment.	Negligible	Minor
P19	Appin Lodge	The property is situated 4.61 km south east of turbine 21 and is entirely outside of the ZTV. As illustrated by this and the wirelines, there would be no views of the proposed Development from this property. Excluded from detailed assessment.	Negligible	Minor

Ref	Property	Comments	Magnitude of Change	Level of Effect
P20	Glenjaan	This property is located 4.85 km south of turbine 21, in the base of the Dalwhat Water valley. It comprises a 1.5 storey house with large barns to the south west set amongst mature trees marking surrounding field boundaries. Main elevations of the house face along the valley to the northwest, towards the site, and southeast.	Moderate/ Slight	Moderate
		The wireline illustrates that three turbine hubs (turbines 19–21), including aviation lights, would appear above the skyline towards the head of the valley. Intervening forestry is likely to partially screen turbine 21 such that only the blade tips are visible and trees surrounding the property would provide some limited further screening and filtering of views.		
		Although the two most visible turbines (19/20) would be a notable addition to views, these would be relatively distant and effects would not be so great that they would approach the RVA threshold. Excluded from detailed assessment.		
P21	Blackcraig	The property is situated 4.97 km south east of turbine 5 and is entirely outside of the ZTV. As illustrated by this and the wirelines, there would be no views of the proposed Development from this property. Excluded from detailed assessment.	Negligible	Minor



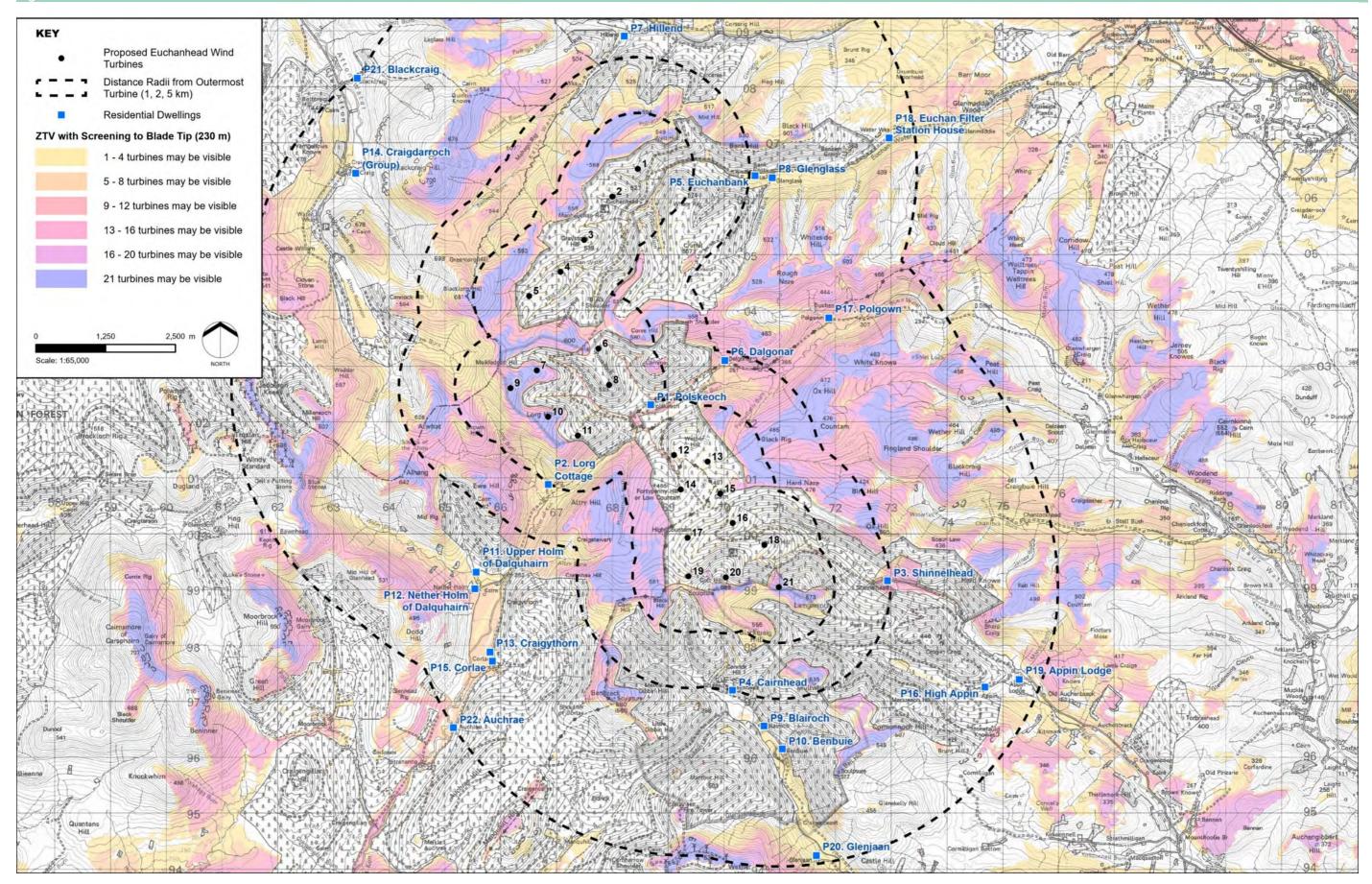
Ref	Property	Comments	Magnitude of Change	Level of Effect
P22	Auchrae	This property comprises a 1.5 storey house with outbuildings situated to the north sitting in the bottom of the Water of Ken valley, adjacent to the river. It is located approximately 5.00 km south west of turbine 19. The main house is oriented with the main elevations looking east-west across the valley and sits within a relatively open plot.	Moderate	Major/ Moderate
		The wirelines indicate that a group of 6 turbines (turbines 6-11) would be quite openly visible, including aviation lights, along the valley to the north at 5.68 km or more. These views would occur from garden and driveway areas, although may be partially screened by the outbuildings, and there would be no views from the main elevations of the house.		
		The group of turbines would be a notable new feature in views along the valley to the north although they would be relatively distant and only seen from limited parts of this property. Effects would not be so great that they would approach the RVA threshold. Excluded from detailed assessment.		

A.3.9 In summary, further detailed assessment is provided below for the following properties:

- P2 Lorg Cottage
- P3 Shinnelhead
- P6 Dalgonar



## Figure 1 - Residential Location Plan



## P2 - Lorg Cottage



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PROPERTY NAME:	Lorg Cottage
PROPERTY REFERENCE:	P2
DISTANCE TO NEAREST TURBINE:	1.04 km
ORIENTATION OF FRONTAGE	SW
DIRECTION TO TURBINES:	N and E
	Not currently in residential use, will remain unoccupied for the duration of the consented Lorg wind farm
	No access to property – survey undertaken from track to south and path to east

#### Baseline Visual Amenity:

This property sits at the head of the Lorg Glen and at the foot of the steep sided Lorg Hill. It is a small, single storey building with small windows. There are groups of trees located in the gardens immediately west and east of the house. There is an outbuilding amongst the trees to the west and the eastern half of the main building comprises a byre/storage. Views to the south west are open and extensive, along the length of the glen with views to the north east highly constrained by the rising landform of Lorg Hill. To the north west and south east there are relatively open views across the top of the glen and along Lorg Burn although there is enclosure provided by landform within a few hundred metres of the property. No existing turbines are visible from here although the blades of one of the consented turbines at Lorg will be visible above hills to the east.

#### Likely Change to Visual Amenity:

The proposed Development would introduce views of three turbines appearing above Lorg Hill to the immediate north of the property, occupying an arc of view of approximately 58°, as illustrated by the wirelines in Annex 1. Two of these would be visible from just below the hub while the third would only have blades visible over the intervening landform. These views would be available widely within open areas around the house and from the driveway and parking areas although would require one to look upwards given their elevated position. The turbines would also be visible on the approach to the property up the glen, as illustrated by LVIA Viewpoint 2.

Views from within the house would be very limited. Front windows on the south west elevation look away from the proposed Development while rear windows look directly onto the hillside and would not feature views of turbines unless one was stood at the window and was looking upwards.

Views of the proposed hub mounted aviation lights on T9 and T10 would occur at night although would only be notable from external areas of the property. During periods of good visibility, the lights would reduce from 2000cd to 200cd which would reduce the intensity of the lights when seen here. At times, when the prevailing wind results in turbines facing toward the property, this would include slow flickering of the two visible lights resulting from blades passing in front of the lights. At other times, however, prevailing winds may result in the turbine being oriented such that aviation are largely obscured by the nacelle body.

Magnitude of Change: Substantial Level of Effect: Major

#### Additional mitigation:

If the aviation detection lighting system were to be implemented, the duration the lights would be on would be so limited that effects of the aviation lighting at the property would be negligible.

## RVAA Judgement:

A small number of turbines would be seen at close proximity, occupying a relatively limited arc of view to the rear of the property. They would not impinge on views from within the house or in the primary views looking along the Lorg Glen. They would be widely visible from the approach to the property and from the garden areas where their elevated position would exacerbate their visual prominence. Effects on visual amenity at the property would be Major although there is unlikely to be views of turbines from within the house and they would not feature in the wider, more open views across and along the glen. Visual effects here would not be sufficient to meet the RVA threshold.



View north towards site from track approaching property

#### D3 - Shinnelhead



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PROPERTY NAME:	Shinnelhead
PROPERTY REFERENCE:	P3
DISTANCE TO NEAREST TURBINE:	1.97 km
ORIENTATION OF FRONTAGE	NE
DIRECTION TO TURBINES:	W
RESIDENT DETAILS:	No financial involvement
SURVEY DETAILS:	No access to property – survey undertaken from track to north and west
D 1: \/:   A :1	

Baseline Visual Amenity:

This property sits adjacent to the upper reaches of the Shinnel Water, the base of the valley is relatively open although surrounding valley sides comprise commercial forestry plantations. Some nearby coupes to the north west have recently been felled, are in the process of being felled or have recently been restocked. It comprises a 1.5 storey dwelling and there are two large barns/outbuildings located to the north west of the main house. These are all set within mature gardens containing numerous large trees surrounding the house and the curtilage is defined by dry stone walls and a mix of fences with occasional groups of trees round the perimeter.

The house is oriented with main elevations facing broadly north east and south west to take advantage of cross valley views although these are somewhat constrained by surrounding garden vegetation, particularly to the north. There are no windows in the western gable end, facing towards the site, although there are some more open views from the garden and driveway areas here that look along the upper part of the valley towards the site. Views from the main garden area to the south and south east of the house are limited due to surrounding trees. No existing turbines are visible here.

#### Likely Change to Visual Amenity:

As illustrated by the wirelines in Annex 1, the proposed turbines would be seen appearing over the head of the glen to the west and extending a short way along the southern valley sides towards the property. Turbines would be seen amongst or above intervening forestry with approximately six in relatively open views, standing well clear of the skyline with only blade tips of more distant turbines likely to be visible. There would be no views from within the house and garden vegetation would provide considerable screening from the main garden areas. Open views would be limited to the driveway and yard/garden area to the north west of the house and may be filtered through trees on the perimeter of the property. Where seen, the turbines would be a prominent new feature at the head of the valley but would appear to be contained by the landform to either side. The forest plan includes the felling of mature forestry on the northern side of Lamgarroch in the period 2019-2023 which is currently underway, as illustrated by the picture opposite. The proposed Development would not alter the timing of remaining felling or restocking of this area. This area of forestry is located in front of where turbine 21 would be seen although would have no notable effect on visibility of the turbine which would stand clearly above.

These views from external areas would feature the nacelle aviation lights on seven turbines and also a small number of the lower intensity tower mounted lights. Nacelle aviation lights of three further turbines (9-11) would also be theoretically visible although in practice these would be screened by the intervening forestry. When intervening forestry is felled this may result in these lights being visible although they would remain less prominent than those of closer turbines and, in time, restocked forestry would screen them again. At times, when the prevailing wind results in turbines facing toward the property, blades passing in front of the lights would intermittently block views of the lights or make them appear to dim and then brighten.

Magnitude of Change: Moderate Level of Effect: Major/Moderate

#### Additional mitigation:

If the aviation detection lighting system were to be implemented, the duration the lights would be on would be so limited that night-time effects of the aviation lighting at the property would be negligible.

#### Cumulative commentary:

As illustrated by the wirelines in Annex 1, the only proposed windfarm potentially visible from here would be Sanquhar II. This would introduce turbines along hilltops on the northern side of the valley that would extend along and past the property. They would be notably closer than those of the proposed Development and would introduce views of turbines from windows on the northern elevation of the house, albeit filtered through garden vegetation. The combined effects of these two schemes would result in a marked increase in the extent of turbines visible from the property and visual effects would be greater than those of the proposed Development alone. A reduced turbine scheme or aviation detection lighting system would also reduce effects.

### RVAA Judgement:

Changes at this property would be of Moderate magnitude and not sufficient to meet the Residential Visual Amenity threshold.

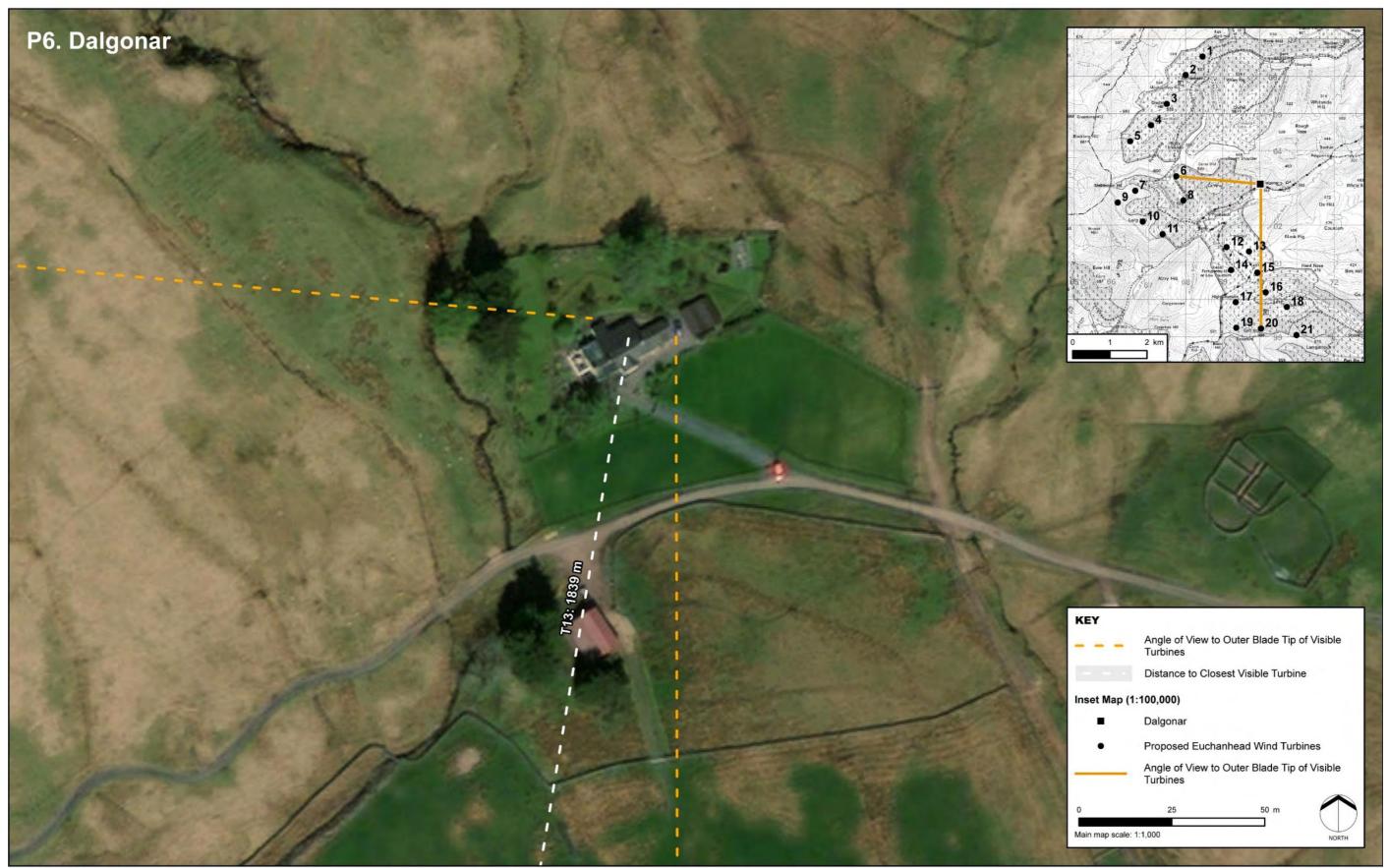


View towards site from track to north west of property, including ongoing felling on north side of Lamgarroch



View of gardens and north west facing elevation of main house from track to north west of property

## P6 Dalgonar



Maxar, Microsoft. Inset map contains © Crown copyright, All rights reserved. 2019 License number 100020565 • Contains Ordnance Survey data © Crown copyright and database right 2019



Dalgonar
P6
1.84 km
SE
S and W
No financial involvement
Granted access to all external areas of property

Baseline Visual Amenity:

The property is set on a valley side within mature gardens, it comprises a single storey house with stables located immediately to the east and the curtilage is defined by post and rail fences with some trees also along the western perimeter. Main garden areas are to the north and west of the house with functional yard space located to the south and east around the stables.

The main views from the house look south across the valley and south east along its length. These are relatively open although those to the south are occasionally interrupted by vegetation within the garden and around a barn in the valley bottom. To the west the views are more contained by garden vegetation and nearby forestry although some longer views are possible over and between the vegetation. Views north are limited by rising ground and garden vegetation.

The consented turbines at Lorg would be partially visible from here, seen appearing above hills across the valley to the south west although they would tend to be partially screened or filtered through vegetation to the south west of the house.

#### Likely Change to Visual Amenity:

As illustrated by the wirelines in Annex 1, the proposed Development would introduce turbines across the valley to the south. Four proposed turbines would be seen in fairly open view across the hilltop to the left (east) of the consented Lorg turbines and would be notably closer and larger, occupying an arc of view of approximately 30°. These would be seen in oblique views from windows on the southern elevation of the house and from the yard area and path to the front but are unlikely to be visible elsewhere within the property.

Another distinct group of three turbines (T8, T10 and T11) would be introduced into views to the west, slightly more distant than those to the south. One of these (T 11) would be seen in relatively open view, including the hub mounted aviation light and lower intensity tower lights, while the other two are likely to be seen as blades above intervening forestry, this group would occupy an arc of view of approximately 19°. There would be direct views of these from glazed patio doors and one small window on the western elevation of the house and from the western garden area, including from a raised patio along the side of the building. The forest plan for the proposed Development includes felling of some of this forestry in 2029-2033 which would open up views although perimeter sections would be retained and the coupe just beyond will have been restocked prior to this so some screening will remain. In time, restocked forestry here will again grow and largely screen views of T8 and T10.

The turbines would be seen as large, new vertical features sitting above the valley and their scale would appear equal to that of the valley sides. They would be prominent in views from the property although confined to two small groups seen from two distinct aspects. It is unlikely that proposed turbines to both the south and west would be seen together from any part of the property due to the dense garden vegetation located at the south western corner of the house. There would be no views from the rear elevation of the house or the garden area to the north.

At night, nacelle aviation lights four turbines would be visible along with the lower intensity tower lights on three. At times, when the prevailing wind results in turbines facing toward the property, blades passing in front of the lights would intermittently block views of the lights or make them appear to dim and then brighten.

Magnitude of Change: Substantial Level of Effect: Major

#### Additional mitigation:

If the aviation detection lighting system were to be implemented, the duration the lights would be on would be so limited that effects of the aviation lighting at the property would be negligible.







View of gardens and south east facing elevation from road



#### Cumulative commentary:

The only proposed wind farms that would be seen from here are Lorg (both the consented scheme and proposed increased tip height) and Sanquhar II. The increased height turbines at Lorg would not result in any notable change in visibility, compared to the consented scheme, from this property. This property is under control of the Sanquhar II development and should that be consented the house would be removed from residential use for the duration and there would be no cumulative effect.

### RVAA Judgement:

Two relatively small groups of proposed turbines would be seen in two distinct views from this property. They would occupy relatively limited arcs of view and the group to the south would be seen in a view which would already be influenced by the consented development at Lorg. Effects on visual amenity at the property would be Major although there would be many areas within the house and the rear gardens where there would be no views of turbines. Visual effects here would not be sufficient to meet the Residential Visual Amenity threshold.



View west towards site from western garden area



View of gardens and south west facing elevation of main house



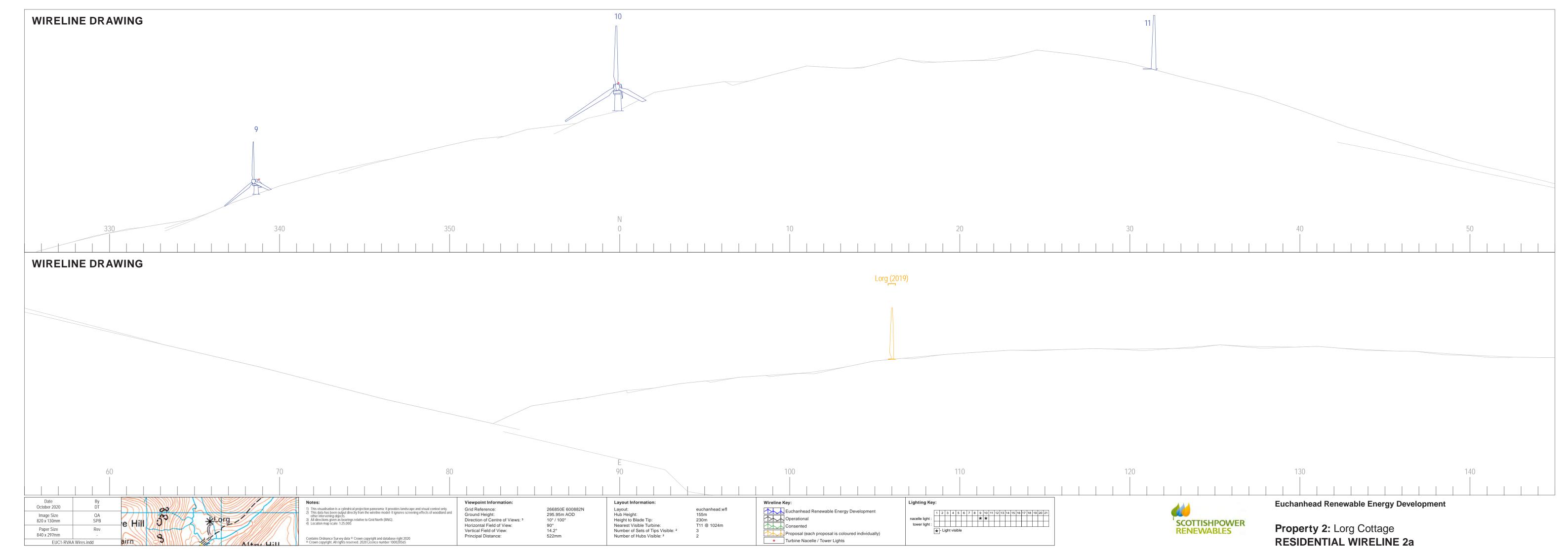
## A.4 Summary and Conclusions

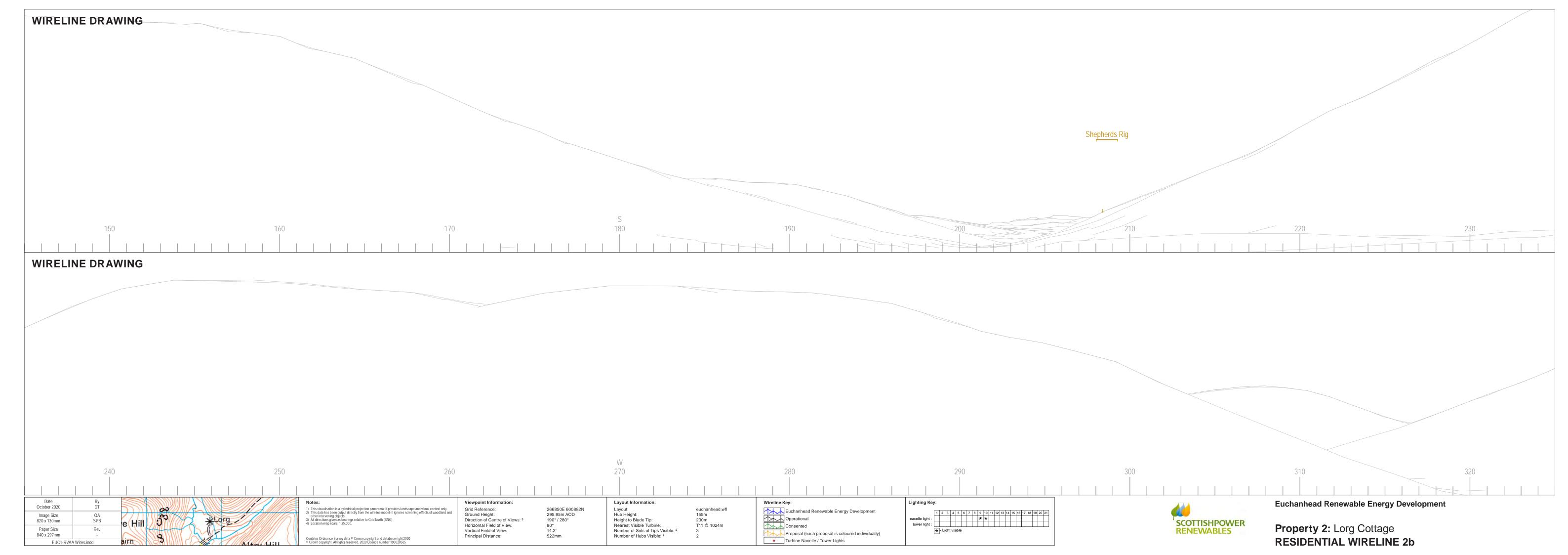
- A.4.1 The residential visual amenity assessment was extended to a 5 km radius of the proposed turbines to conform with the latest Dumfries and Galloway Supplementary Guidance on Wind Energy Development. There is a total of 24 individual residential properties within the expanded RVAA study area, of which three are considered as a group (P14 Craigdarroch group).
- A.4.2 In terms of construction phase effects, the most notable of these would arise from visibility of cranes during the final erection of turbines. This would be a short-term activity and the scale of change arising would be no greater than that of the operational phase of the proposed Development.
- A.4.3 Proposed access route A, borrow pits, laydown areas, construction compounds and associated lighting of these elements would all be located away from residential properties considered within this assessment. There would be no notable visibility of these elements and they would have little or no impact on residential visual amenity.
- A.4.4 If proposed access route B were used, a Moderate effect on residential visual amenity would arise at three properties during construction, P5 Euchanbank, P8 Glenglass and P18 Euchan Filter Station House, but would not be sufficient to meet the Residential Visual Amenity threshold.
- A.4.5 In terms of operational phase effects, 12 of the properties would have little or no visibility of the proposed Development and changes to views would be negligible.
- A.4.6 A number of properties would have some visibility of proposed aviation lighting. Lights would tend to be most notable from external areas of a property where external lighting is switched off or not present. Internally, the turbine lights are only likely to be noticed in rooms where curtains and blinds are not in use and lights are switched off. If room lights are switched on then reflection of these in the dark windows would largely obscure external views. With the additional mitigation of an aviation detection lighting system, any night-time effects would reduce to negligible.
- A.4.7 Only two properties, P2 Lorg Cottage and P6 Dalgonar, were identified in the initial assessment as potentially experiencing the highest magnitude effects and having the potential to meet the Residential Visual Amenity threshold. Detailed assessment of these properties identifies that they would both experience a Major level of effects as a result of turbines seen in relatively open view in close proximity. In both cases this would arise from a relatively small number of turbines seen in specific views. There would remain ample areas within each property that would be unaffected by views of the proposed Development and effects would not, therefore, be sufficient to meet the Residential Visual Amenity threshold.
- A.4.8 The assessment concludes that in no case would effects be of such nature and / or magnitude that it potentially affects living conditions at any property to the point it becomes an unattractive place to live, when judged objectively in the public interest.

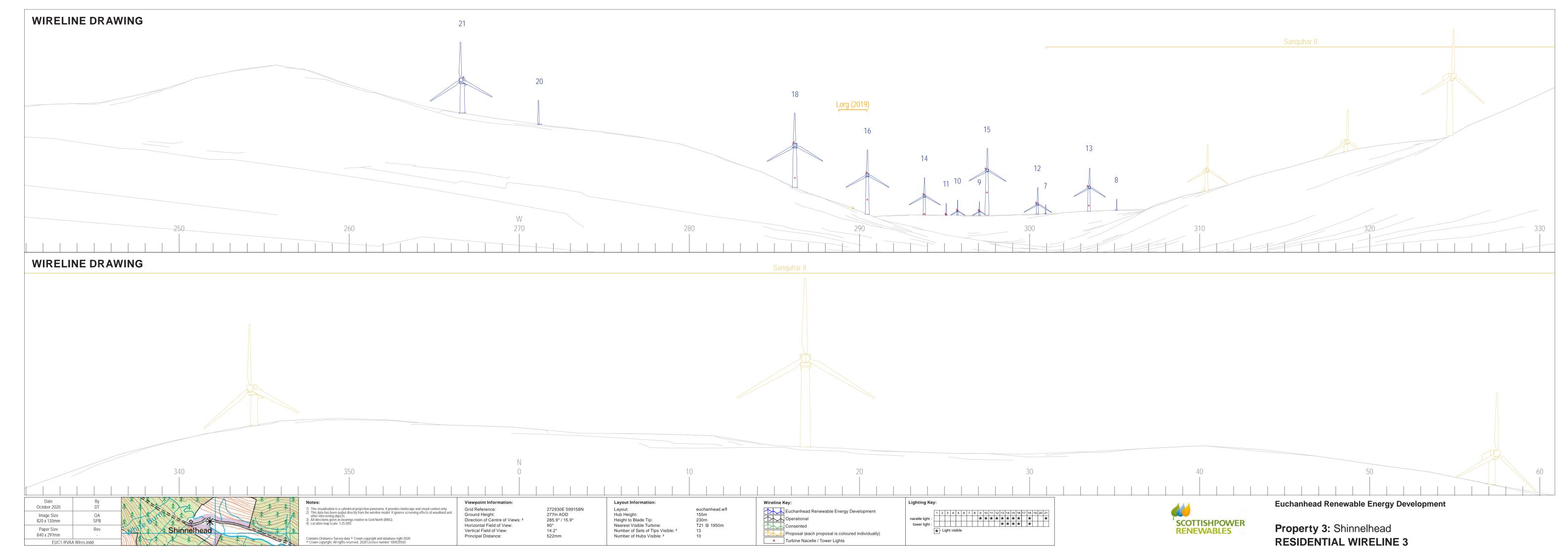


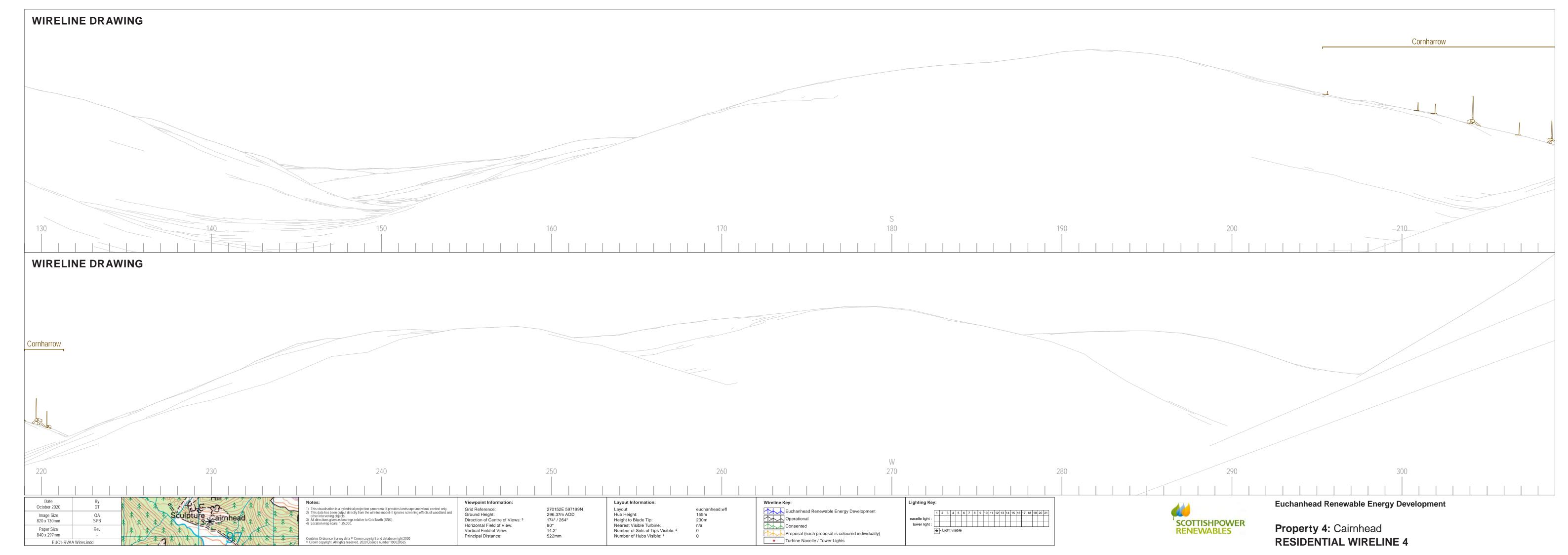
## **RVAA Annex 1**

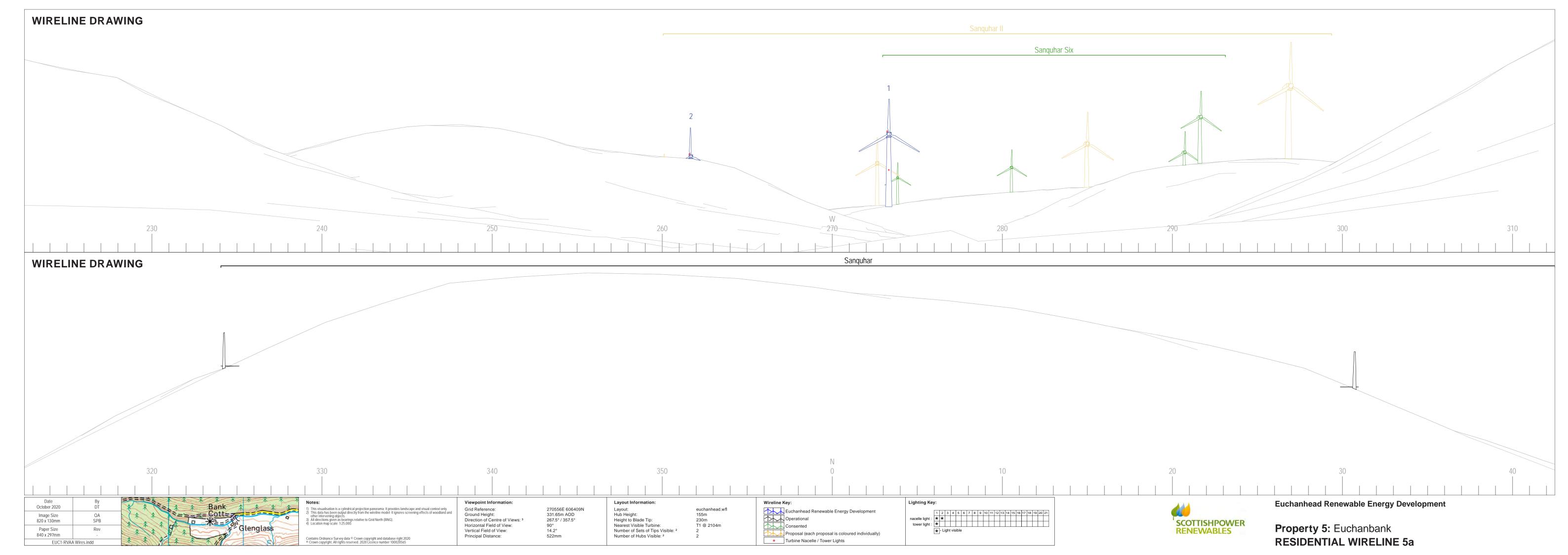
Residential Visual Amenity Assessment Wirelines

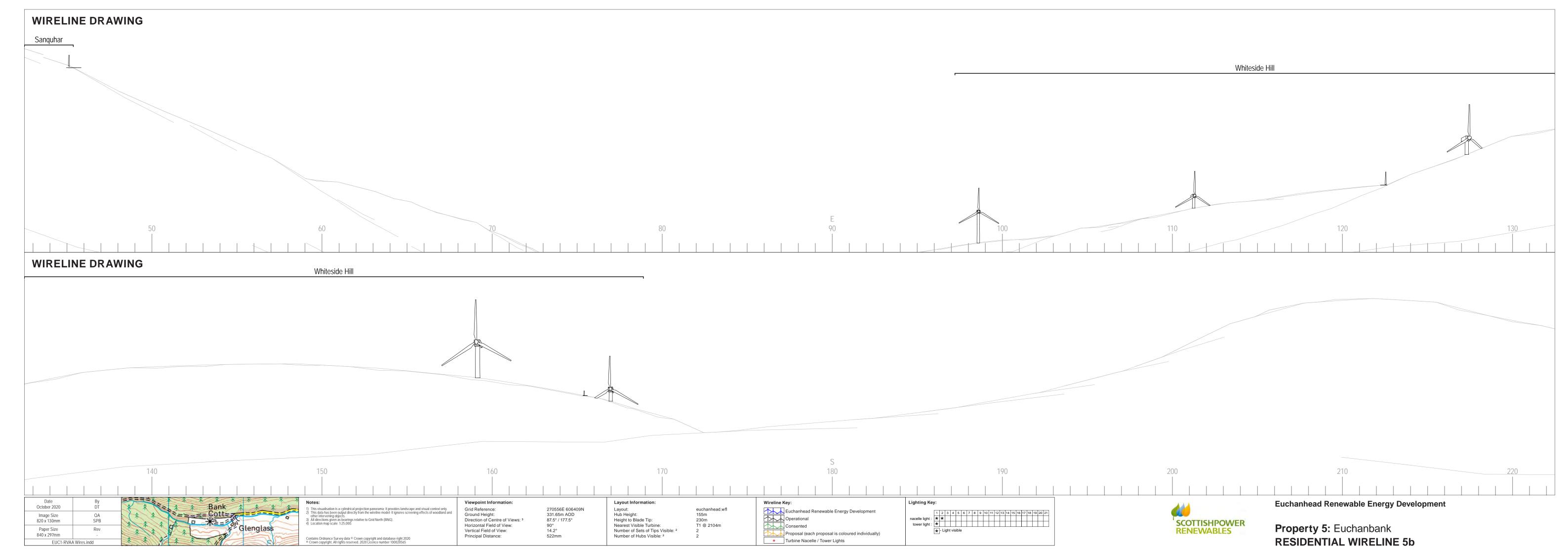


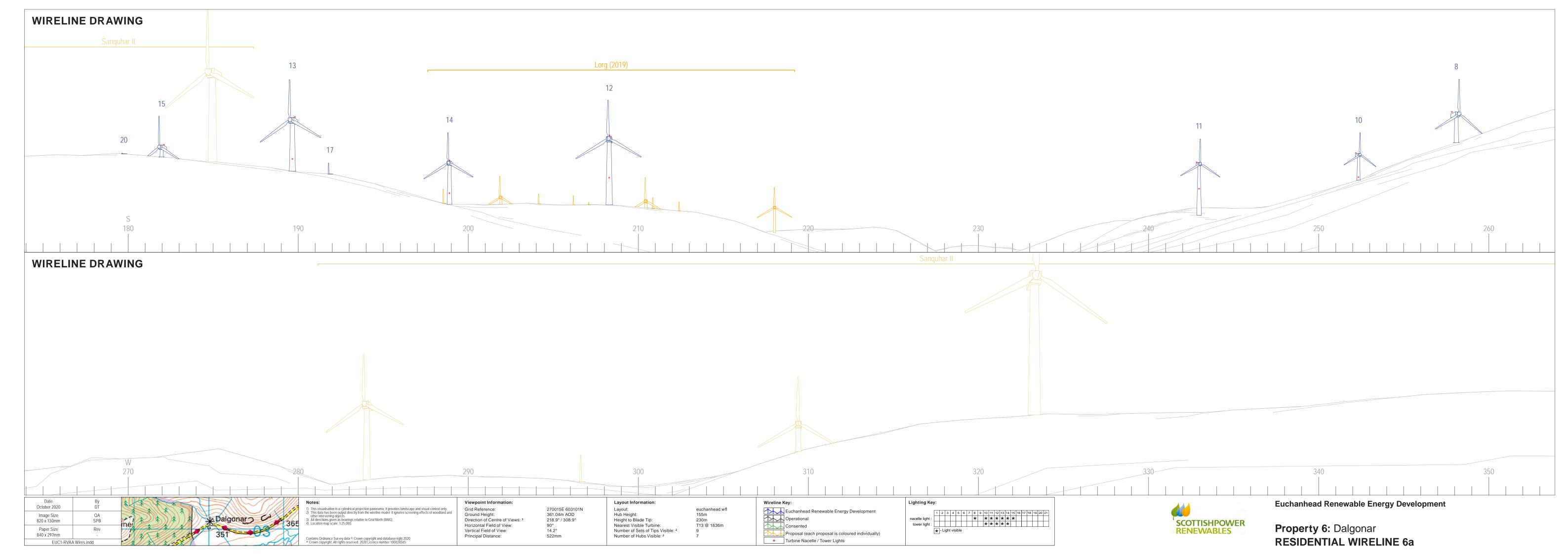


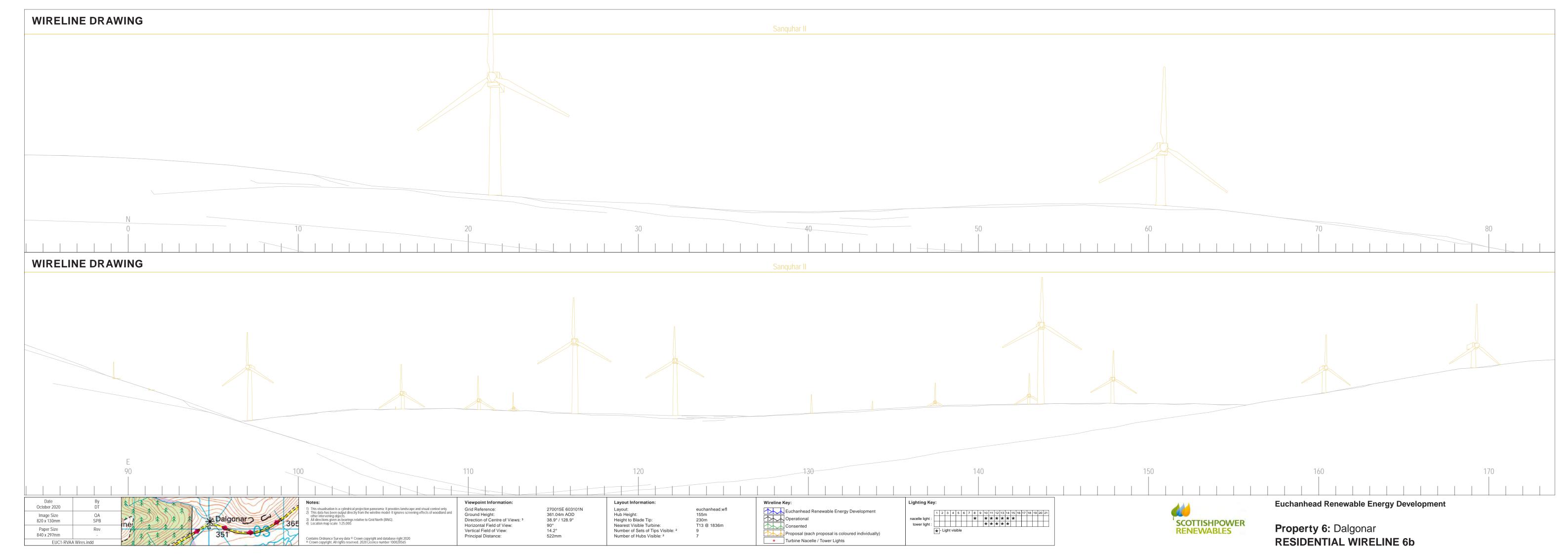


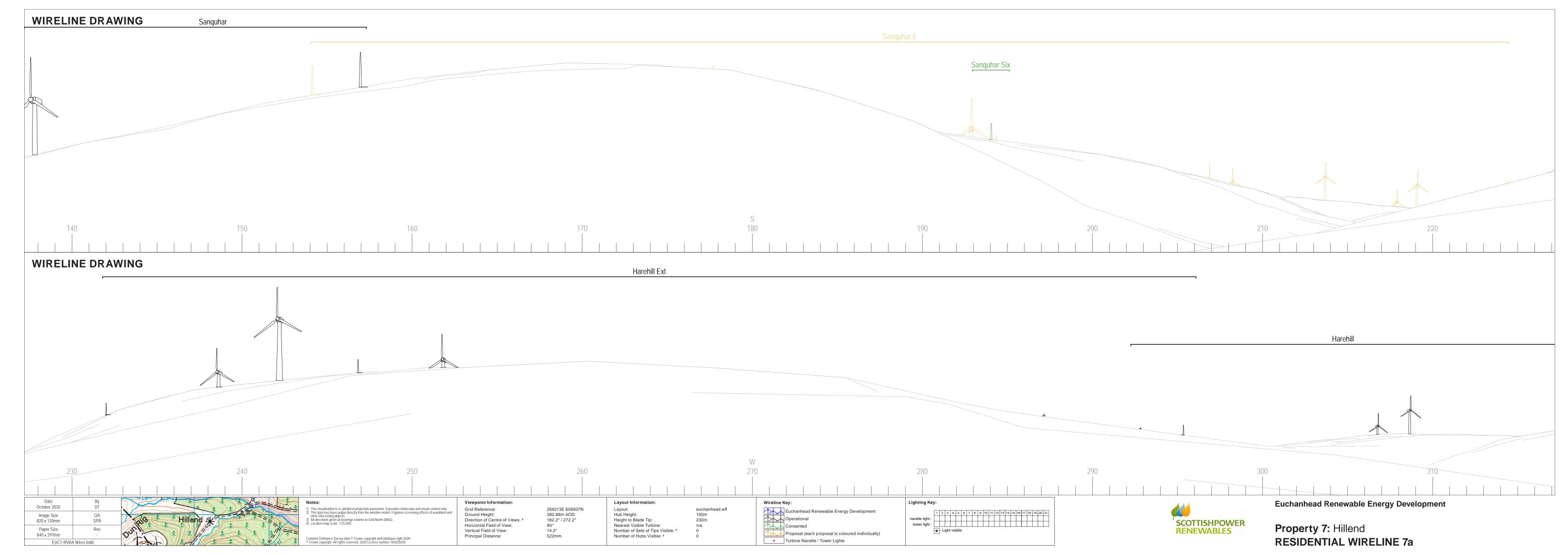


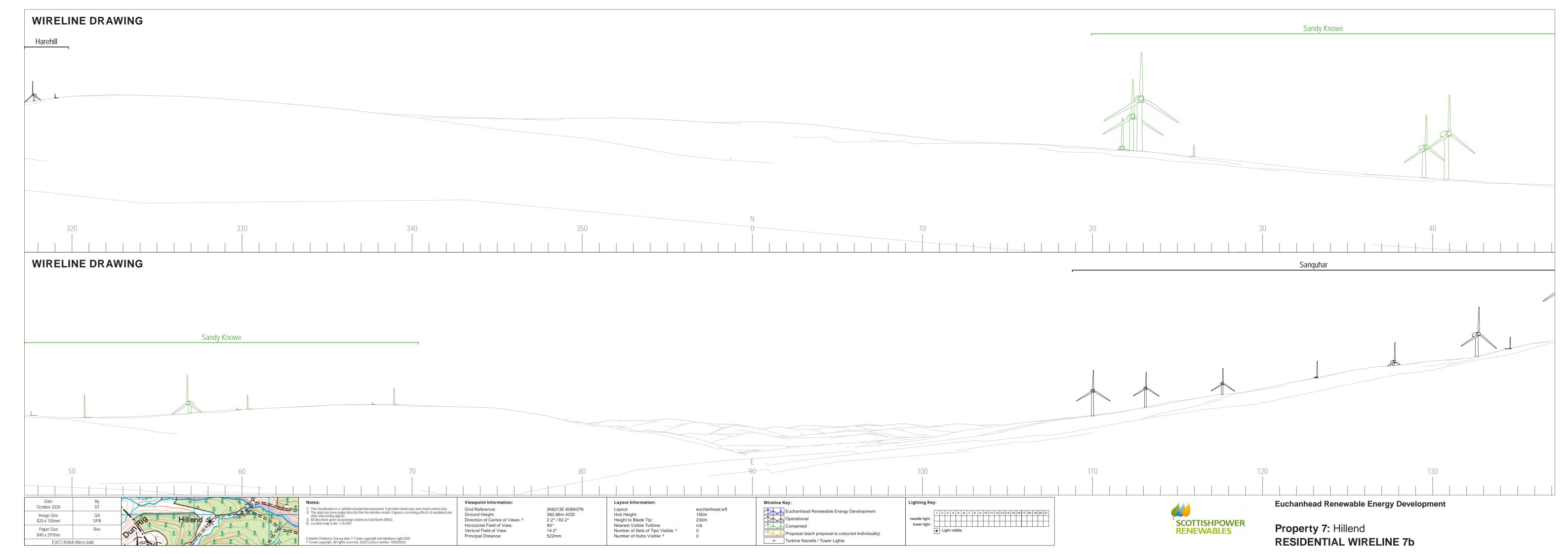


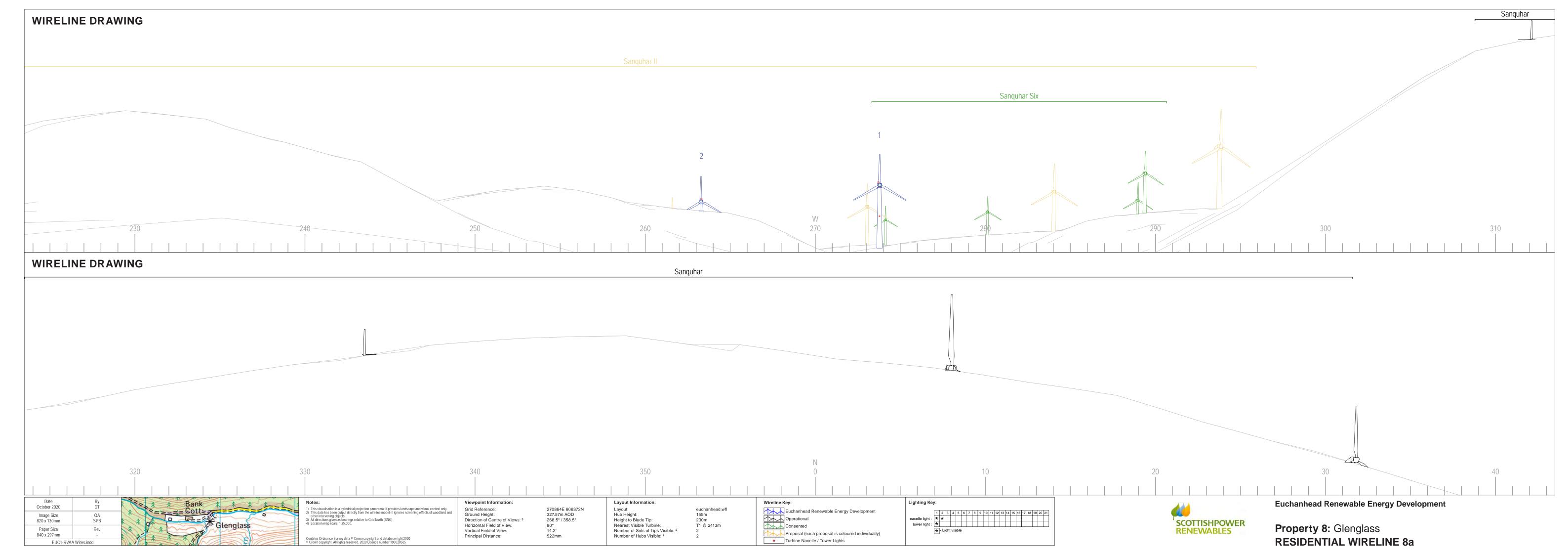


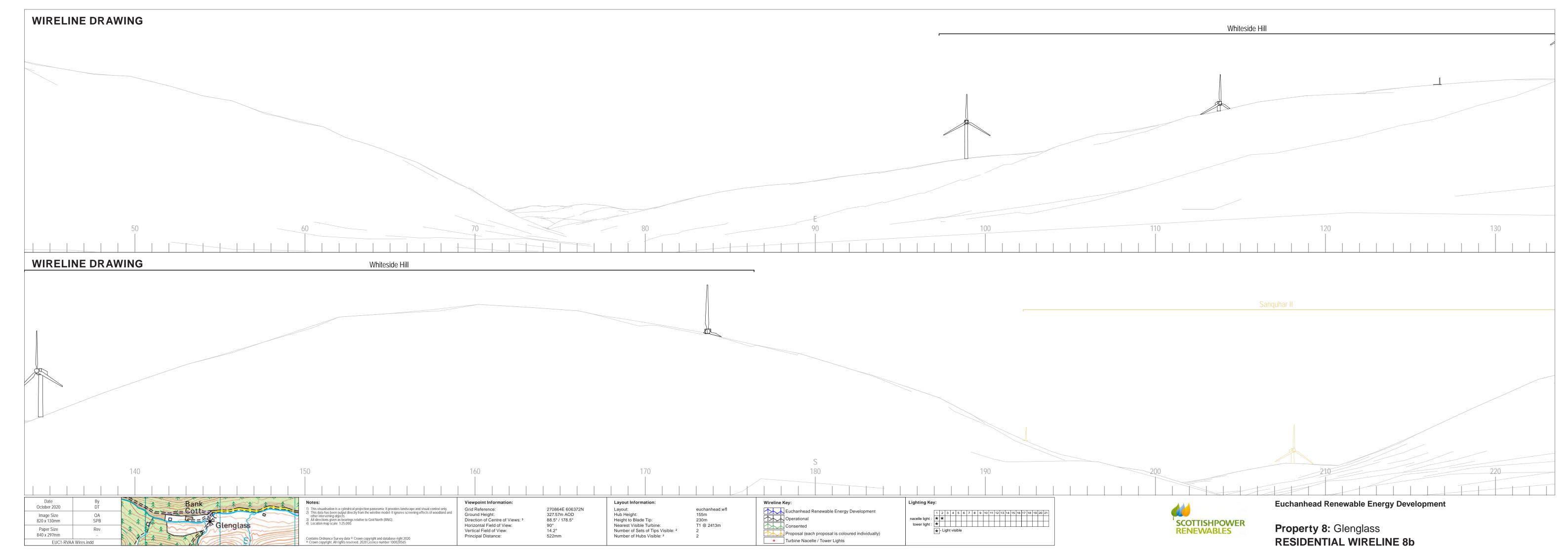


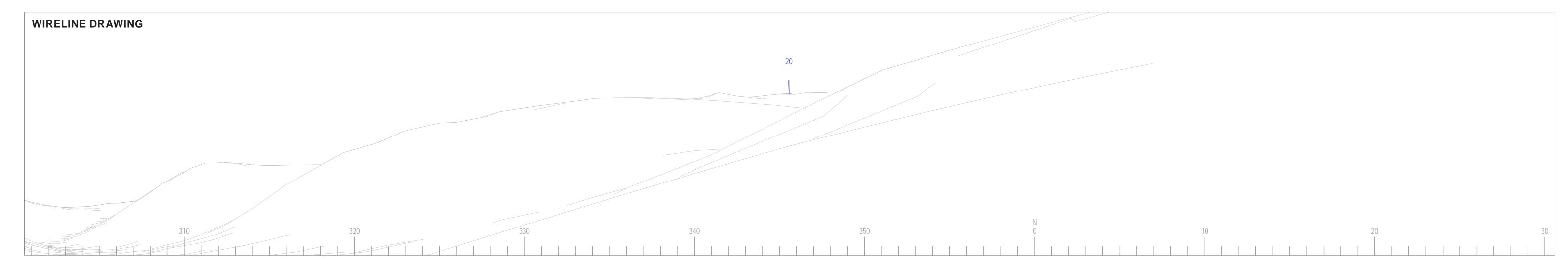












Date October 2020	By DT	39
October 2020	וט	1/2//
Image Size	QA	
820 x 130mm	SPB	16
Paper Size	Rev	4//
840 x 297mm	-	1/1/6
EUC1-RVAA Wires.indd		

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Ground Height:
Direction of Centre of Views: <sup>3</sup>
Horizontal Field of View:
Vertical Field of View:
Principal Distance:

270717E 596559N 239.72m AOD 345.6° 90° 14.2° 522mm

Layout:
Hub Height:
Height to Blade Tip:
Nearest Visible Turbine:
Number of Sets of Tips Visible: <sup>2</sup>
Number of Hubs Visible: <sup>2</sup>

230m T20 @ 2746m

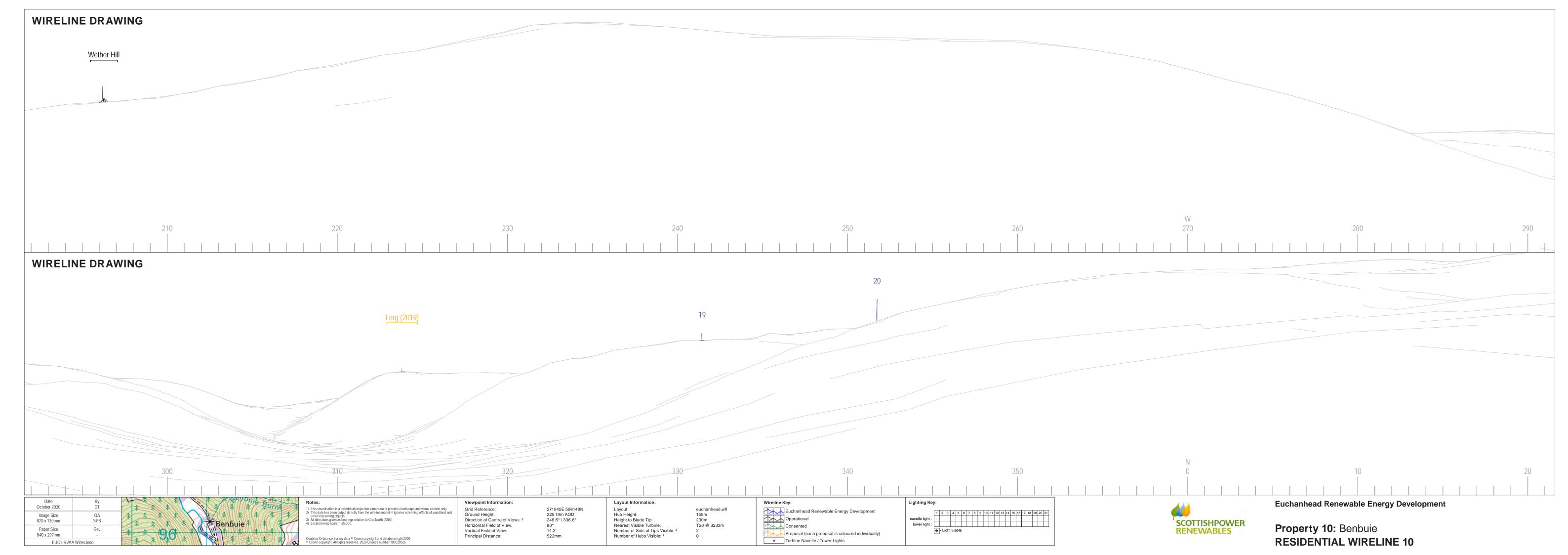


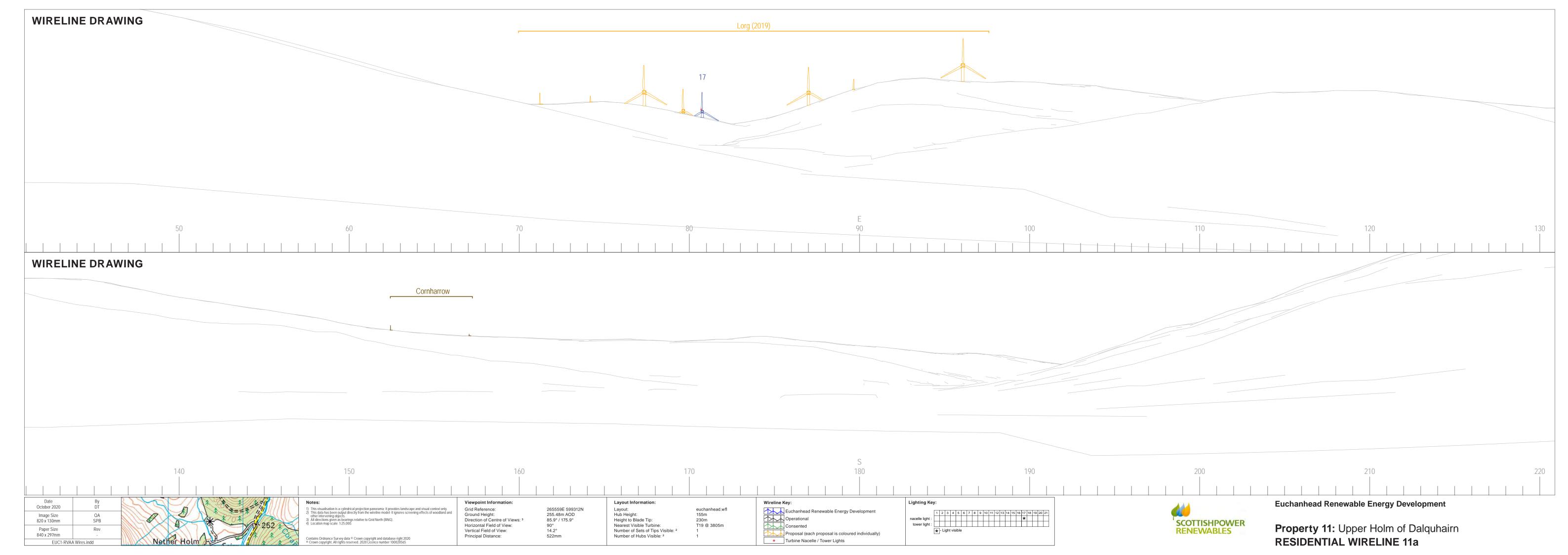


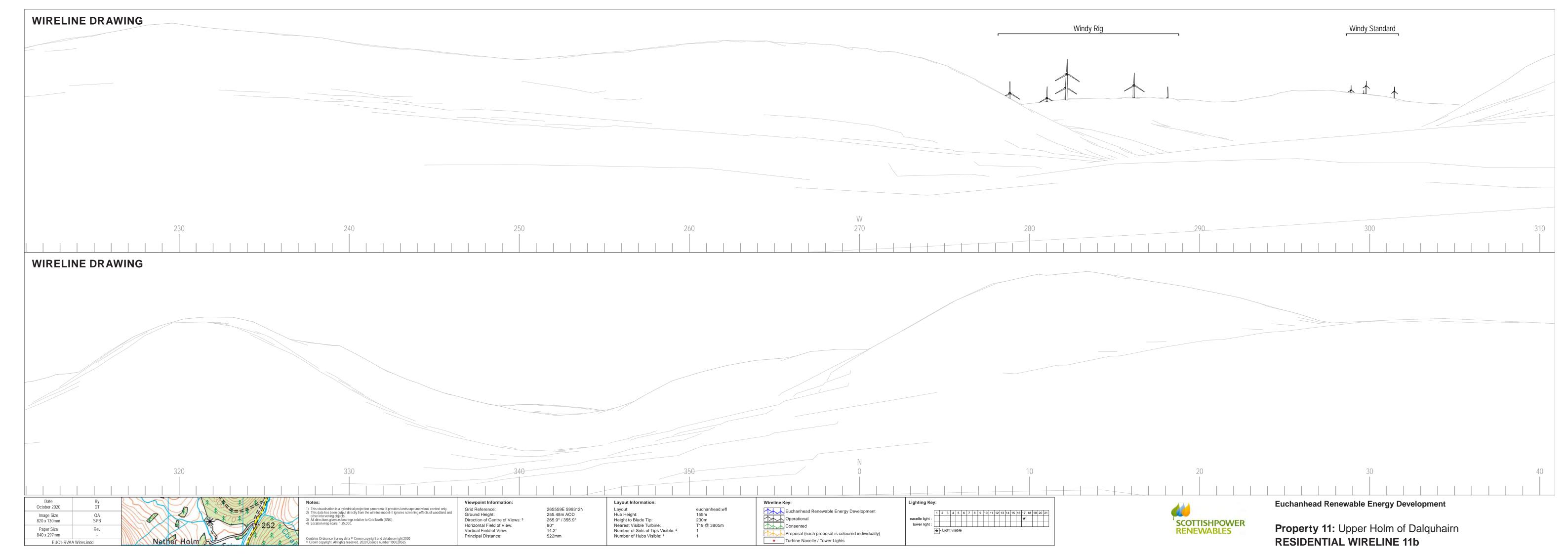


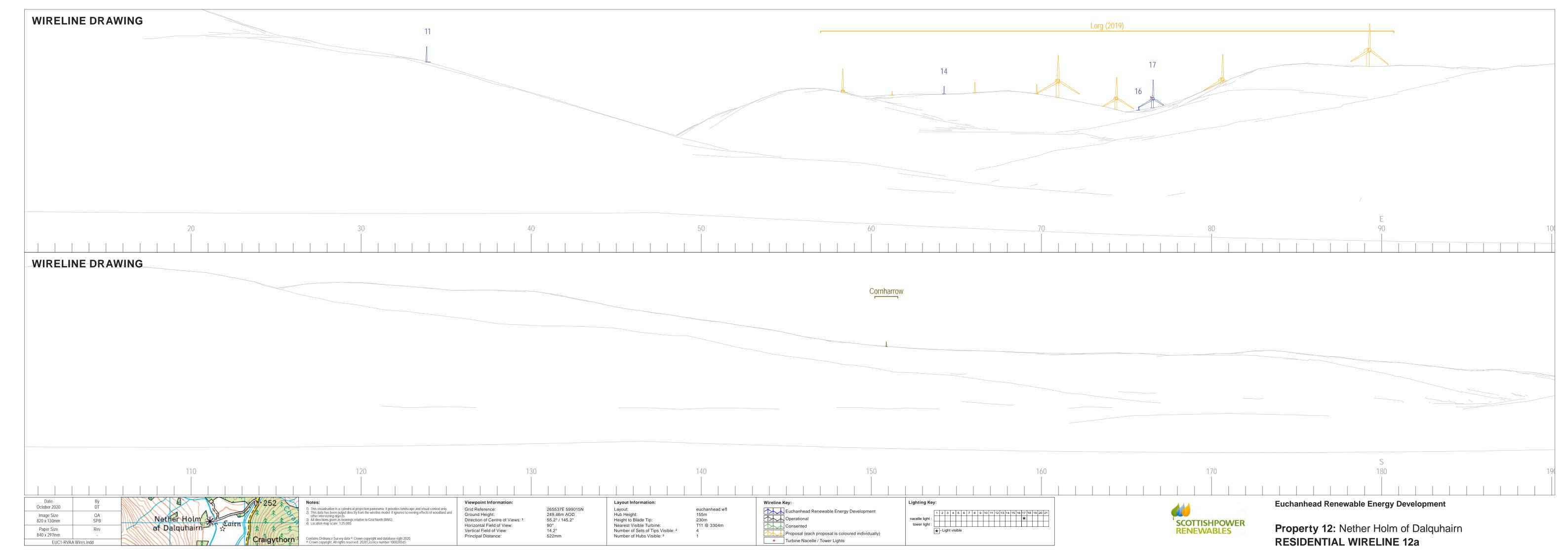
**Euchanhead Renewable Energy Development** 

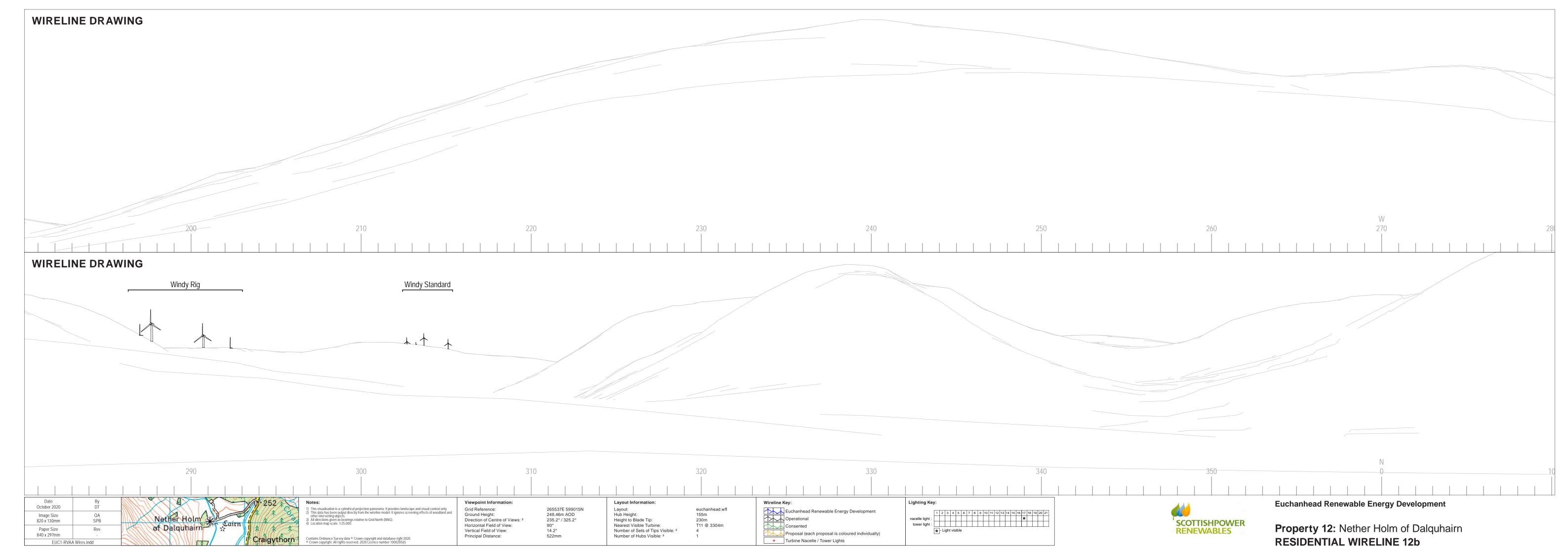
Property 9: Blairoch **RESIDENTIAL WIRELINE 9** 

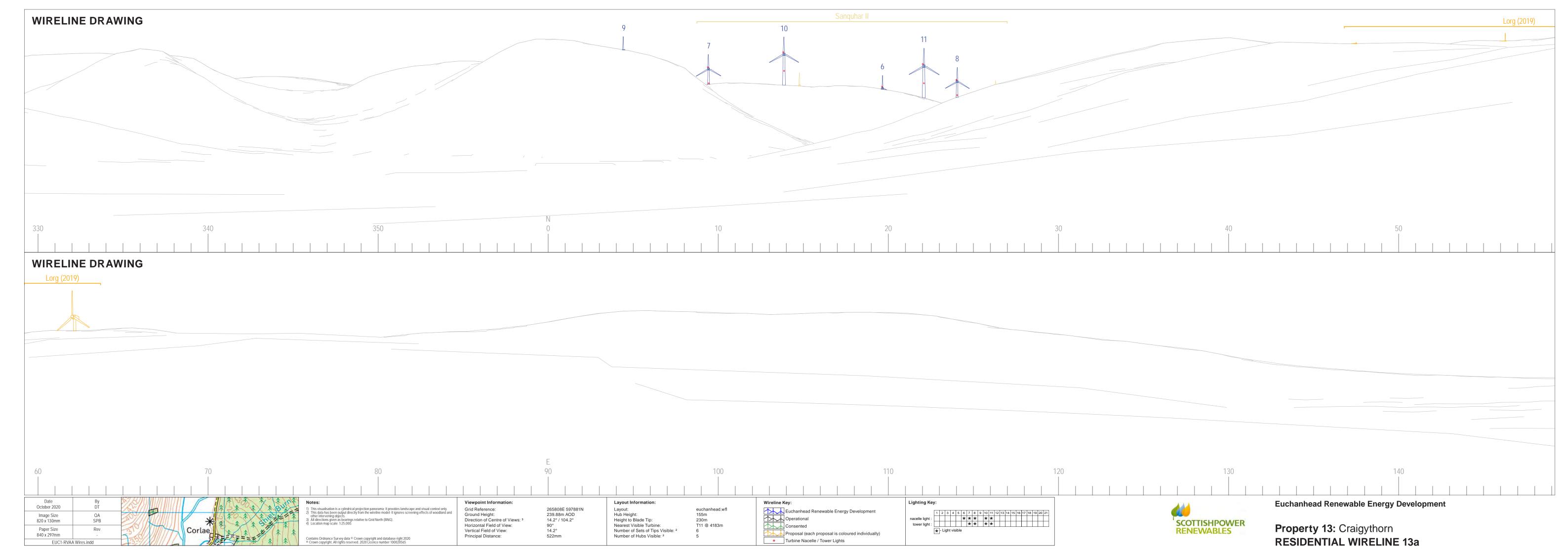


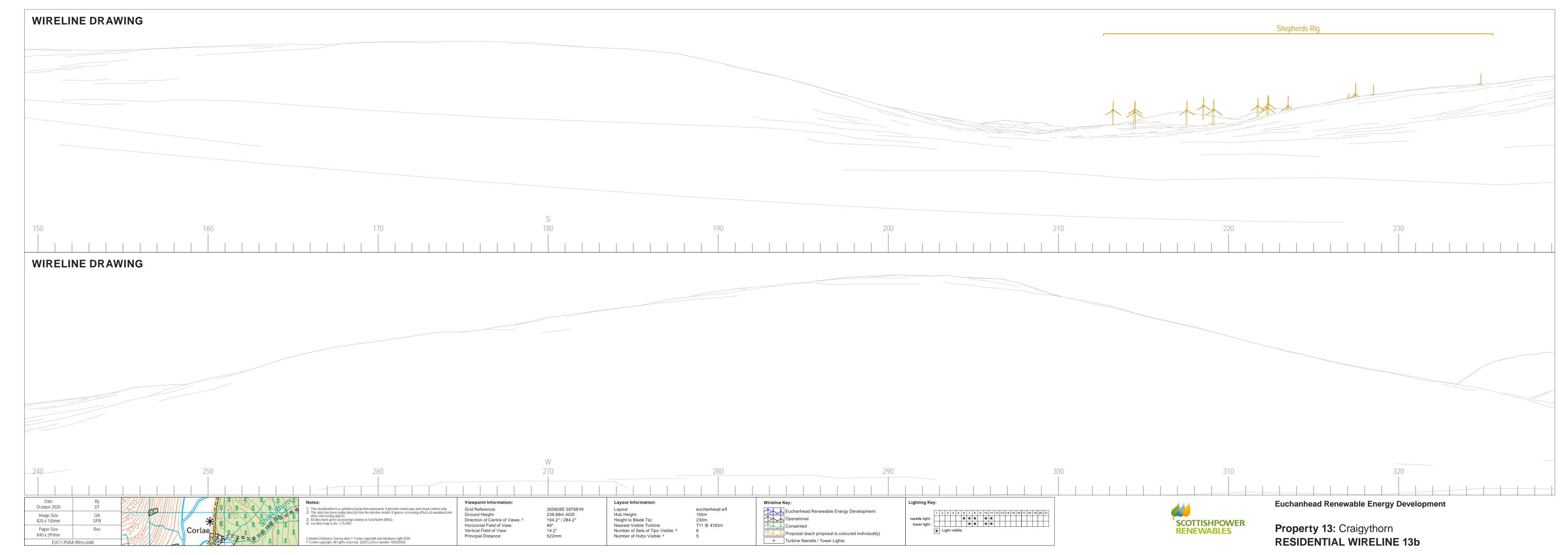


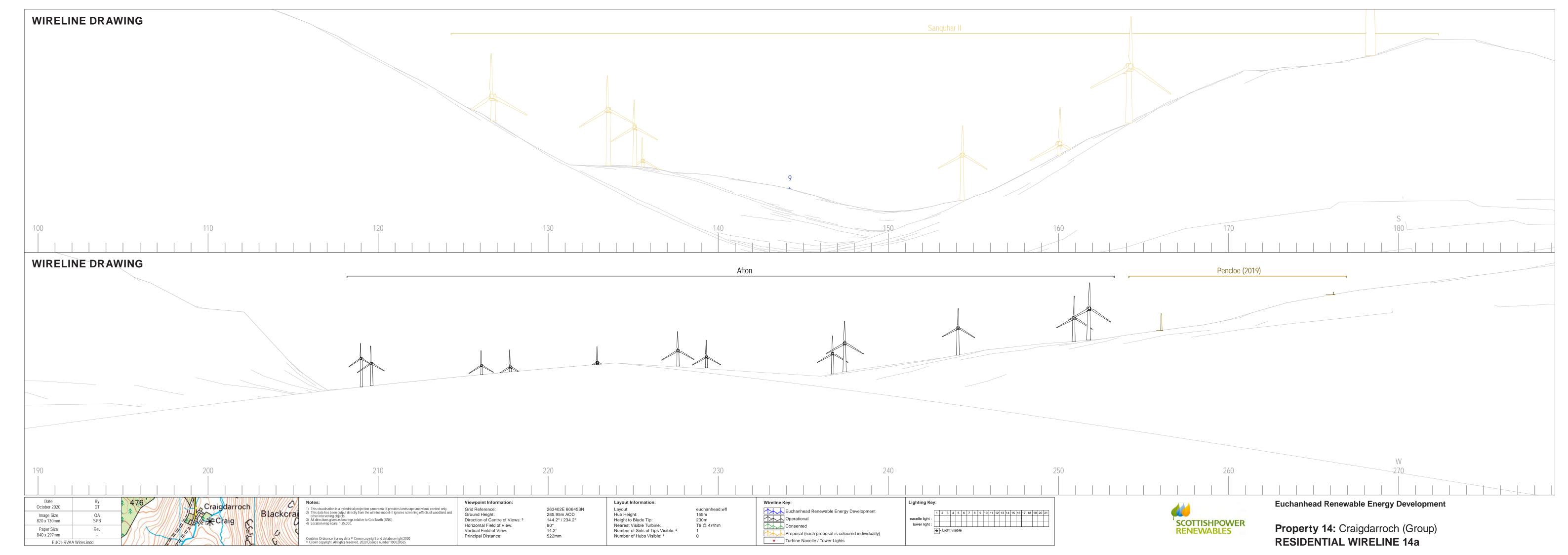


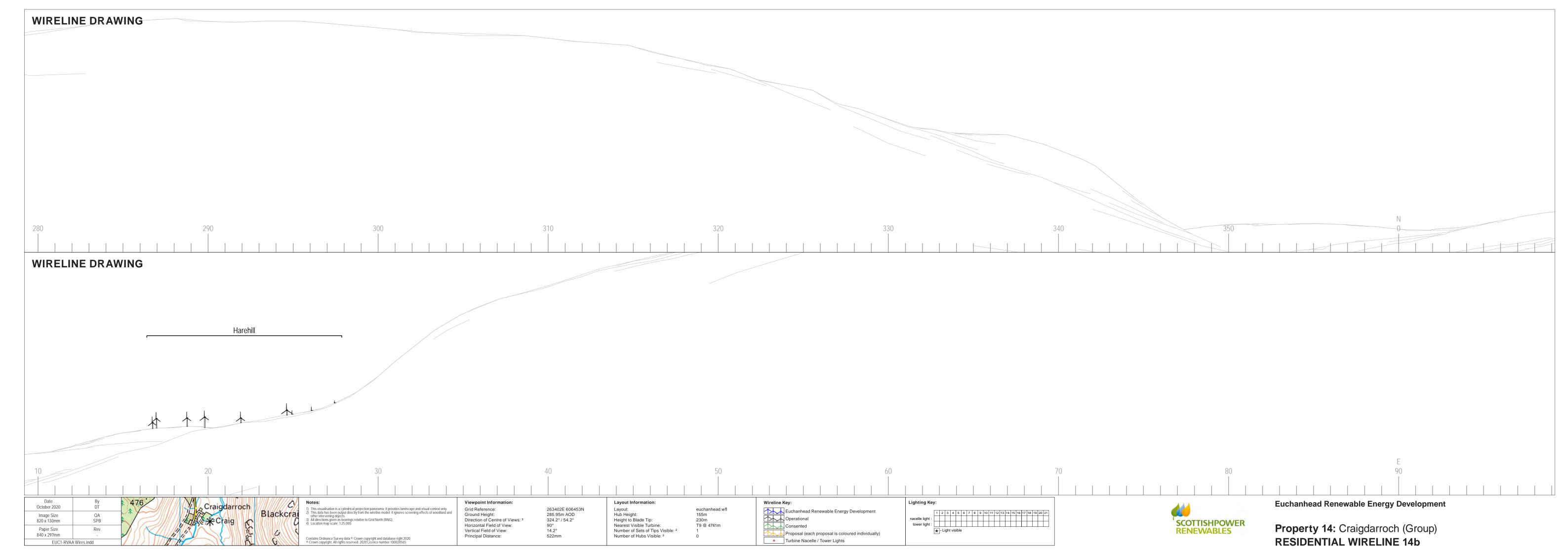


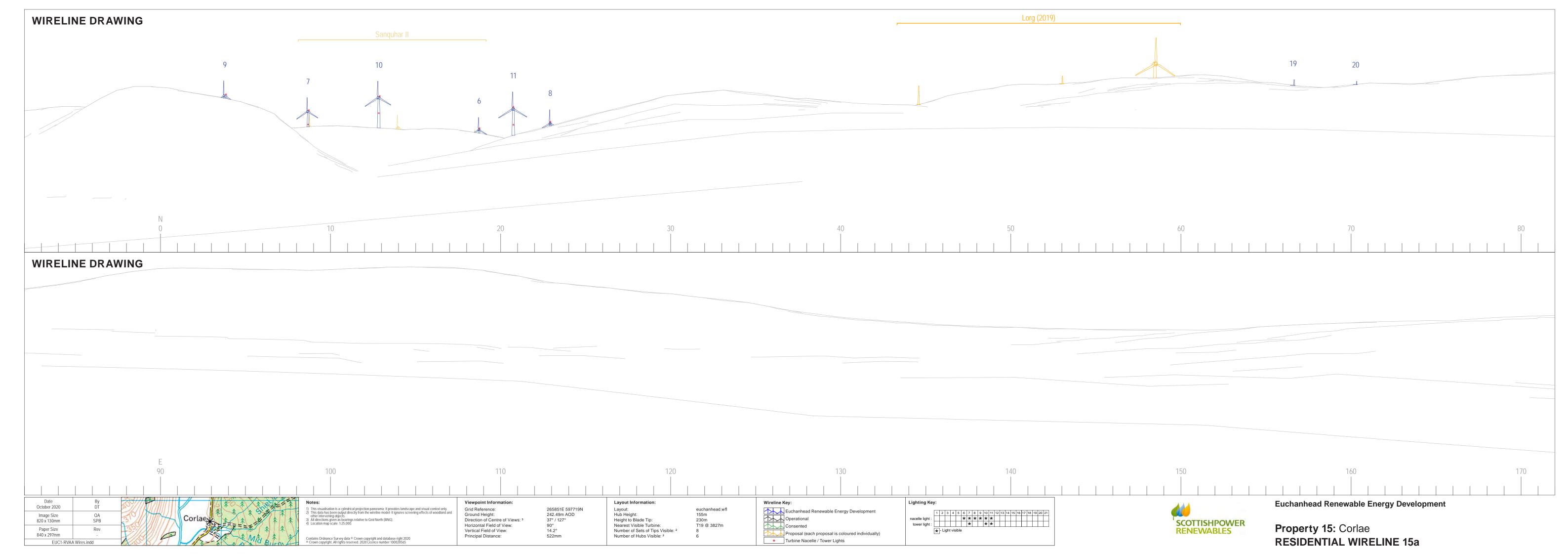


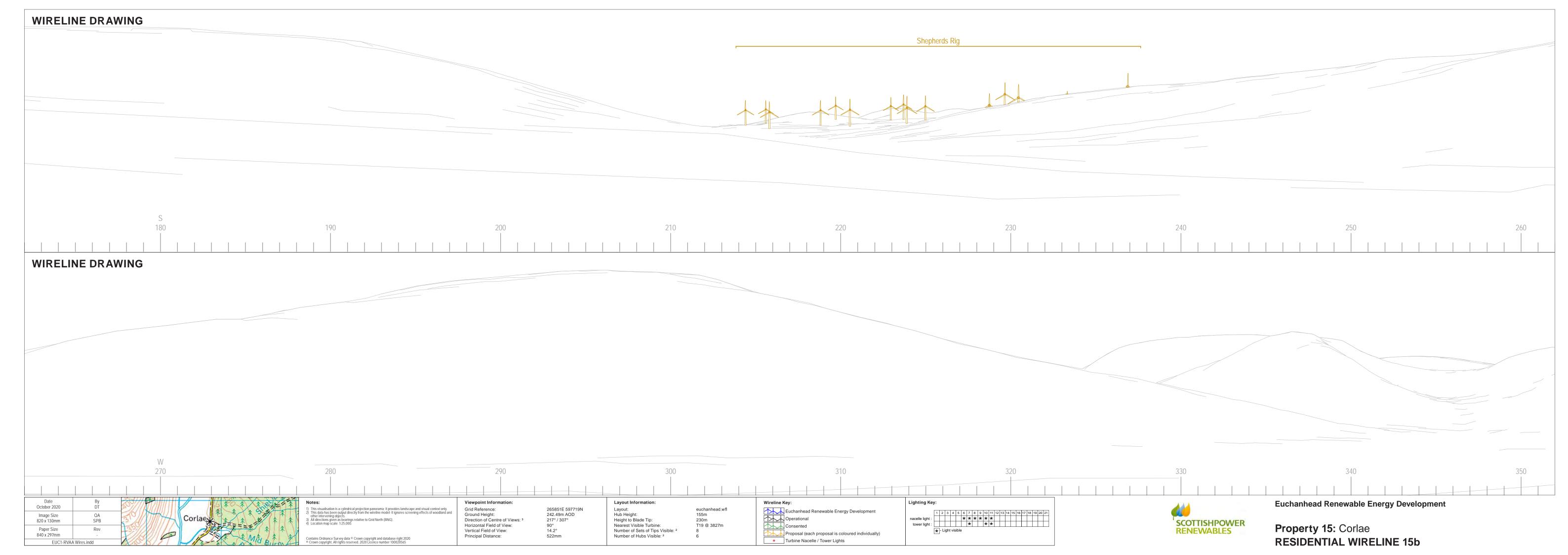


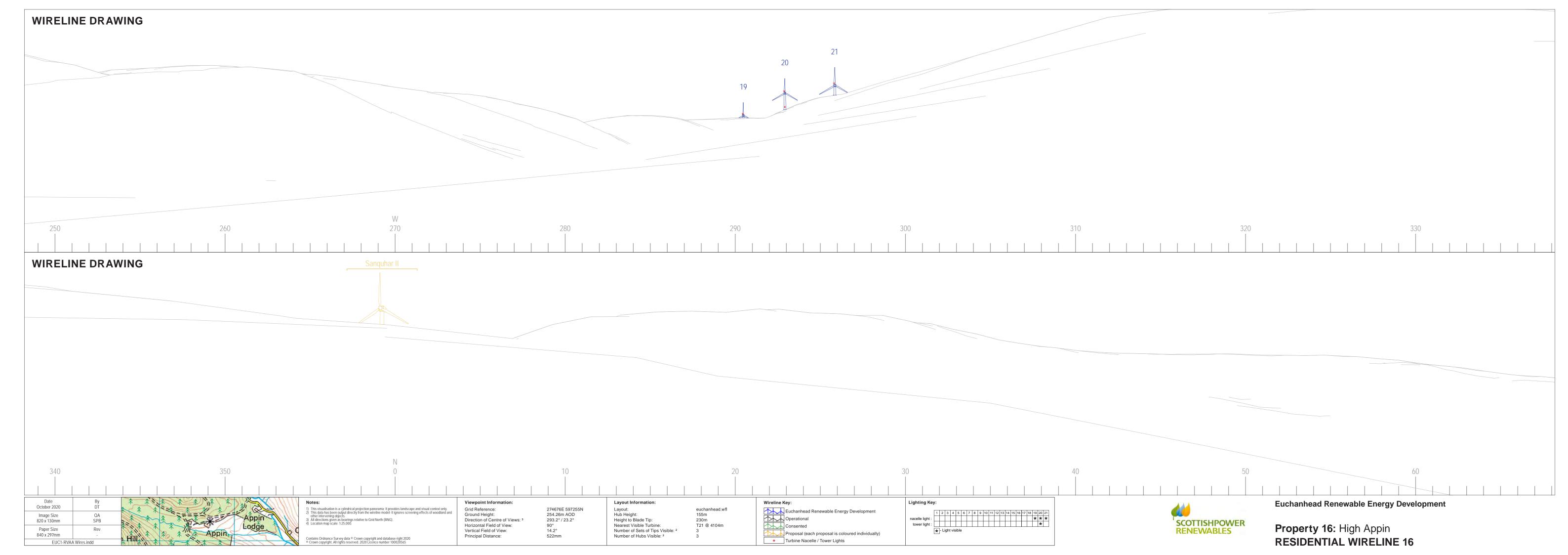


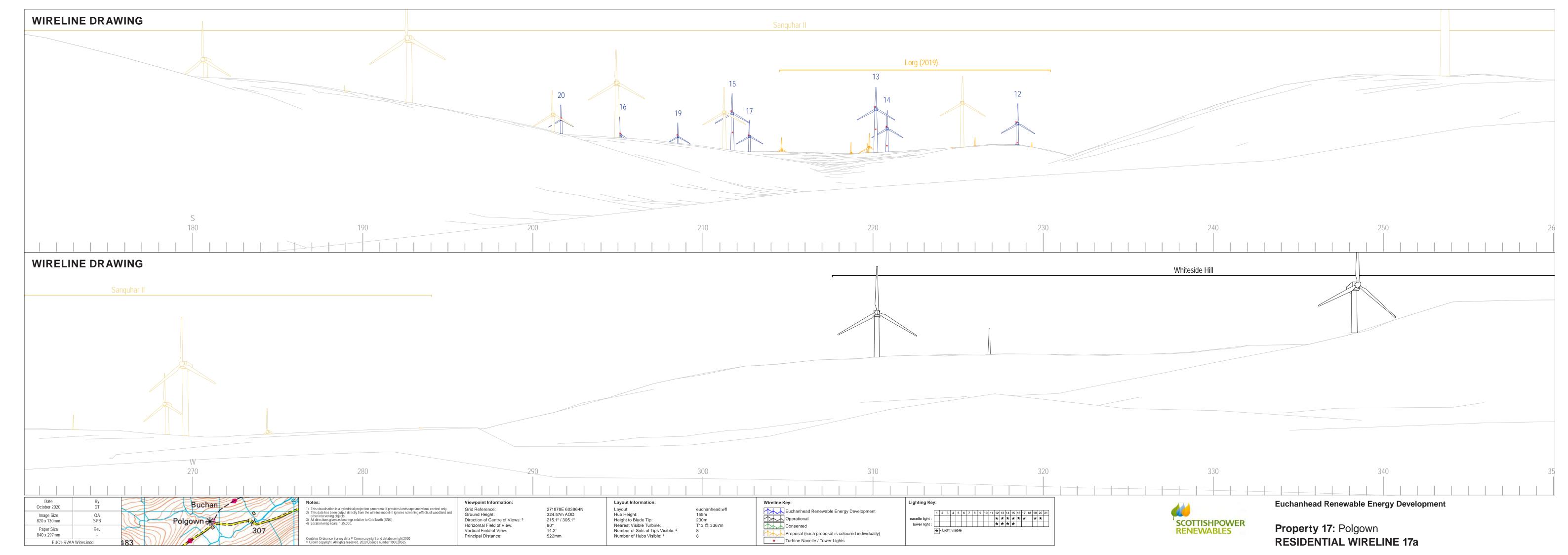


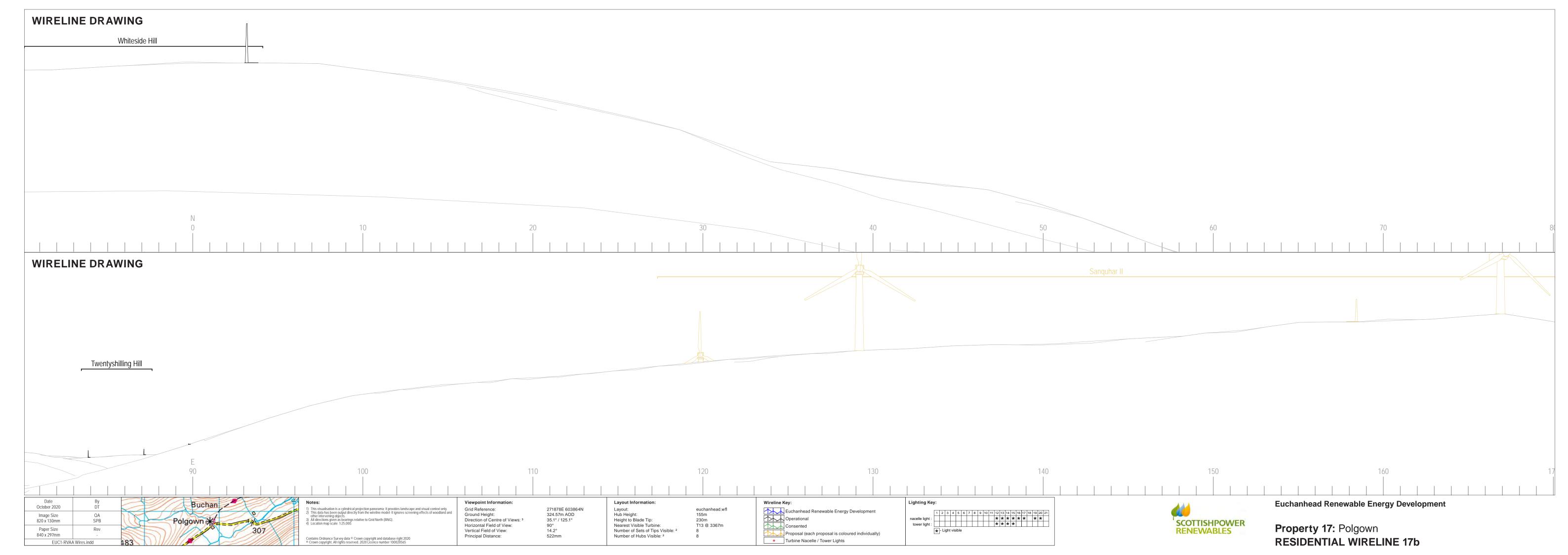


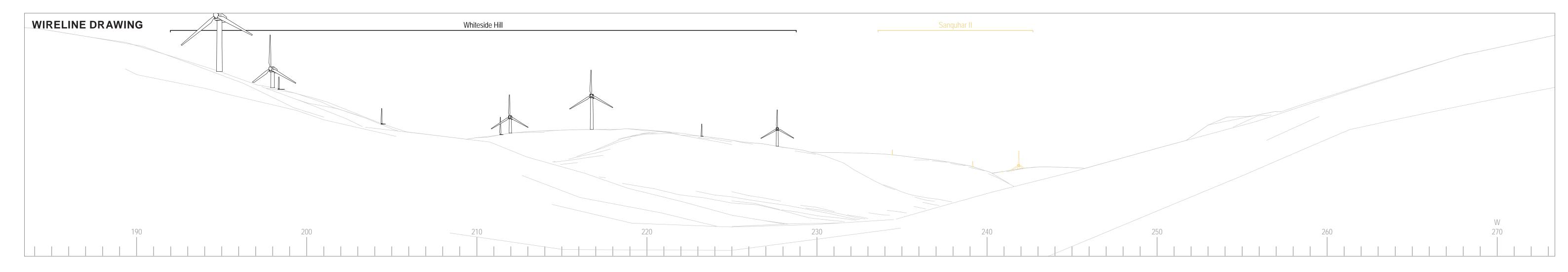














Water Wks 276

Benzien 383

Grand 22

This visualisation is a cylindrical projection panorama: It provides landscape and visual context only. This data has been output directly from the wireline model: It ignores screening effects of woodland and other intervening objects. All directions given as bearings relative to Grid North (BNG). Location map scale: 1:25,000.

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Ground Height:
Direction of Centre of Views: <sup>3</sup>
Horizontal Field of View:
Vertical Field of View:
Principal Distance:

272959E 607084N

282.02m AOD

228.4°

90°

14.2°

522mm

Layout:
Hub Height:
Height to Blade Tip:
Nearest Visible Turbine:
Number of Sets of Tips Visible: ²
Number of Hubs Visible: ²

chanhead.wfl
5m
0m

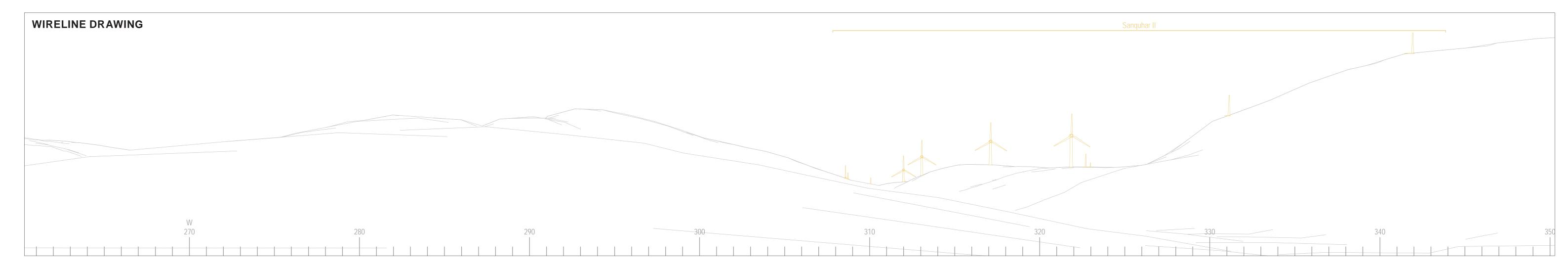
Euchanhead Renewable Energy Development
Operational
Consented
Proposal (each proposal is coloured individually)

\* Turbine Nacelle / Tower Lights



**Euchanhead Renewable Energy Development** 

Property 18: Euchan Filter Station House RESIDENTIAL WIRELINE 18



	Date October 2020	By DT		
	Image Size 820 x 130mm	QA SPB		
	Paper Size 840 x 297mm	Rev -		
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Grid Reference: Ground Height: Direction of Centre of Views: <sup>3</sup> Horizontal Field of View: Vertical Field of View: Principal Distance:

275289E 597392N 219.33m AOD 305.3° 90° 14.2° 522mm Hub Height:
Height to Blade Tip:
Nearest Visible Turbine:
Number of Sets of Tips Visible: <sup>2</sup>
Number of Hubs Visible: <sup>2</sup>

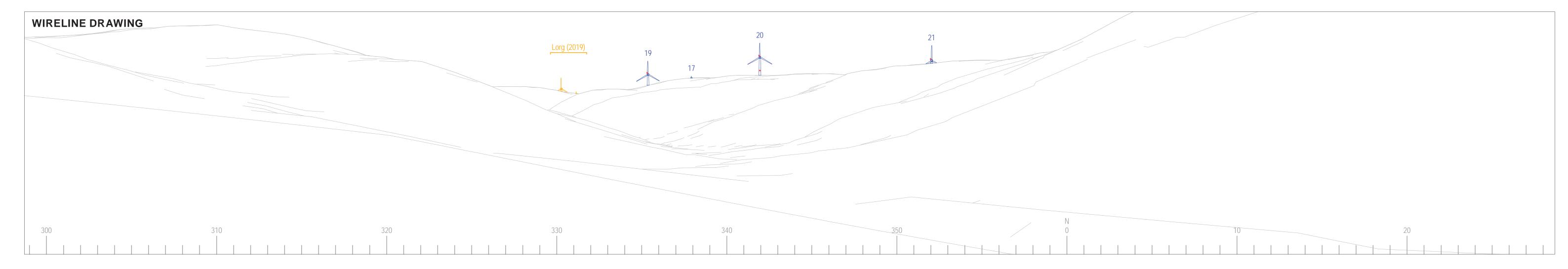
Proposal (each proposal is coloured individually) \* Turbine Nacelle / Tower Lights





**Euchanhead Renewable Energy Development** 

Property 19: Appin Lodge **RESIDENTIAL WIRELINE 19** 



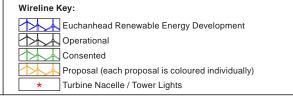
Date October 2020	By DT				
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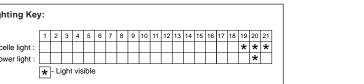
sualisation is a cylindrical projection panorama; It provides landscape and visual context only. Ita has been output directly from the wireline model; It ignores screening effects of woodland a networning objects.

Grid Reference:
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Direction of Centre of Views: <sup>3</sup>
Horizontal Field of View:
Vertical Field of View:
Principal Distance:

271655E 594239N
207.72m AOD
343.7°
90°
14.2°
Number of Sets of Tips Visible: ²
Number of Hubs Visible: ²

euchanhead.wfl 155m 230m T21 @ 4852m 4 3







**Euchanhead Renewable Energy Development** 

Property 20: Glenjaan RESIDENTIAL WIRELINE 20

