

LANDSCAPE AND VISUAL IMPACT ASSESSMENT (LVIA)

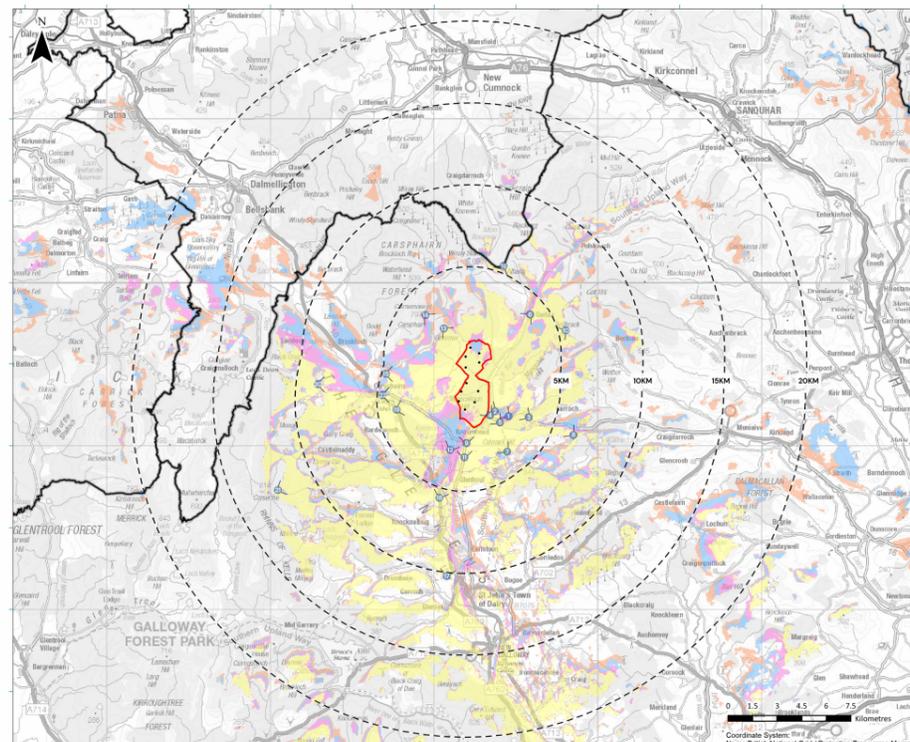
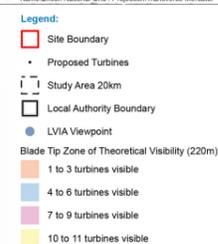


Figure 8.5 - Proposed Varied Development Blade Tip ZTV to 20 km with Viewpoints



A landscape and visual impact assessment establishes the potential effects of a proposed development on the surrounding landscape. The Proposed Varied Development consists of 11 turbines up to 220 m to blade tip.

A Zone of Theoretical Visibility (ZTV) as shown above is a computer-generated tool that establishes the likely extent of the visibility of a proposed development and key visual receptors. A ZTV based on the latest layout for the Proposed Varied Development has been prepared to inform the Landscape and Visual Impact Assessment (LVIA). This ZTV assumes no vegetation or buildings and so is worst-case scenario.

The ZTV indicates the areas where turbines will be visible, based on the relief of the surrounding study area. This is supported by producing and analysing wirelines and photomontages from several agreed viewpoints that give a clearer picture of what the new turbines would look like.

A turbine lighting intensity ZTV has also been prepared and is also shown above. This shows how the intensity of the aviation lights would be reduced by the angle of incidence between the location and the aviation lights.

On the next two banners, you will see four different viewpoints with their respective photomontages. These are to give you an indication of how the Proposed Varied Development would look in comparison to the Consented Development. The final EIA Report will provide a number of additional viewpoints and give further detail about each and will be available to view once the application has been submitted to The Scottish Government Energy Consents Unit.

Why tip heights of 220 metres?

There are a number of reasons why the proposed tip height is greater than the Consented Development. Firstly, the taller the wind turbine, the more wind it can capture and the less the turbine is affected by wake losses due to forestry. As a result, far more green electricity is generated, maximising the Site's capacity. Furthermore, wind turbine manufacturers are continuously improving turbine technology and addressing the specific needs of other countries globally. Elsewhere in the world, it has become commonplace for 220 m and higher turbines to be erected. In response, turbine manufacturers are following this global market trend and removing the smaller turbine models (<150 m) from their production line. By choosing a 220 m turbine model we are not only maximising the Site's capacity but also ensuring the Proposed Varied Development, if permitted, can be developed without delays in turbine procurement.