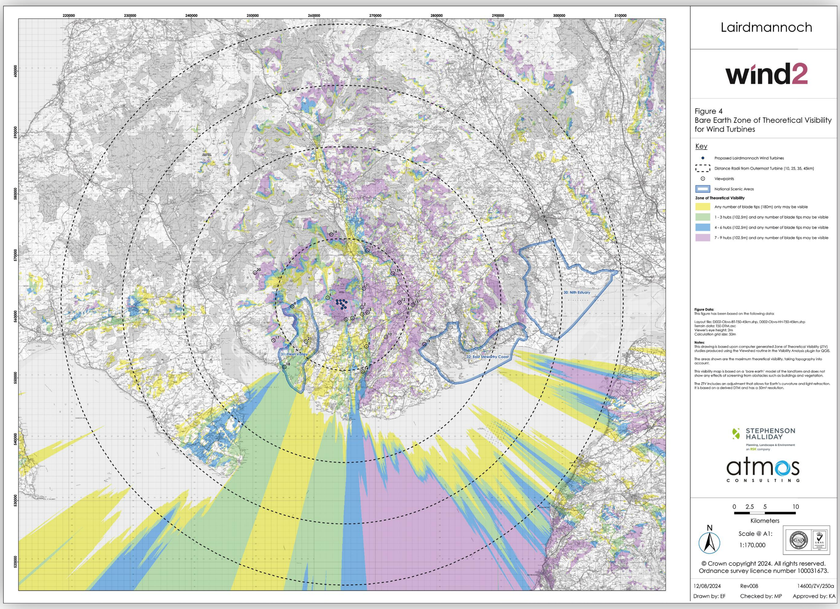
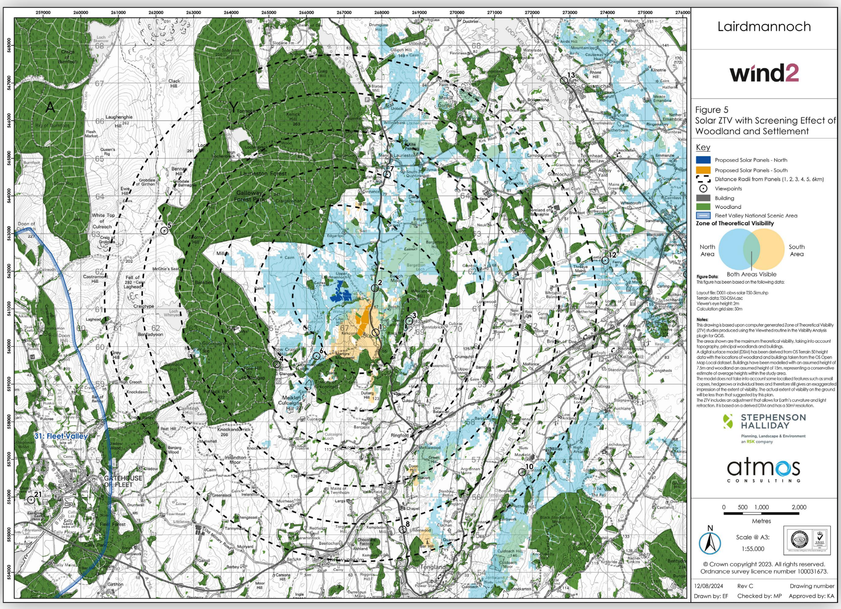
Lairdmannoch Energy Park

Environmental Impact Assessment
(continued)

Zone of Theoretical Visibility (ZTV)

The ZTV plans below illustrates the potential visibility of the proposed wind turbines and solar panels from the surrounding area. The potential view from six key viewpoint locations is shown on the following boards to illustrate what the proposed energy park would look like if constructed.




Lairdmannoch
wind2
Figure 5
Solar ZTV with Screening Effect of Woodland and Settlement
Key
Proposed Solar Panels - North
Proposed Solar Panels - South
Distance Radii from Panels (1, 2, 3, 4, 5, 6km)
Viewpoints
Building
Woodland
Fleet Valley National Scenic Area
Zone of Theoretical Visibility
North Area
South Area
Both Areas Visible
Figure Data:
This figure has been based on the following data:
Layout file: 5001-clov-solar 150-3km.shp
Tower data: 150.0m tip
Viewer hub height: 2m
Calculation grid size: 50m
Notes:
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plug-in for QGIS.
The areas shown are the maximum theoretical visibility, taking into account topography only and assuming a clear line of sight.
A digital surface model (DSM) has been derived from OS Terrain 50 height data with the locations of woodland and buildings taken from the OS Open map Local datasets. Buildings have been treated with an assumed height of 7.5m and woodland treated with a height of 15m, representing a conservative estimate of average heights in Scottish study areas.
The model does not take into account some features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated view of visibility. Actual visibility will be greatly reduced in reality on the ground with trees that that suggested by the plans.
The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DTM and has a 50m resolution.
Clark Hill
Laughentie Hill
Queen's Hill
Dunscore Crossroads
Dunscore
Dalbeattie
Kirkpatrick Fleming
Gretna
Carlisle
Lockerbie
Moffat
Dumfries
Castle Douglas
Kirkcudbright
Gatehouse of Fleet
Newton Stewart
Stranraer
Ayr
Glasgow
Edinburgh
Dumfries
Carlisle
Lockerbie
Moffat