Cumulative ZTV to Blade Tip: All Operational and Consented Sites within 15km and Airigh (Combined) with Sheirdrim

Legend
- Application Boundary
- Turbine Location (135m Tip Height)
- Turbine Location (149.9m Tip Height)
- 5 to 15km Buffer of Turbines
- Viewpoint Location

Status of Cumulative Wind Farms
- Operational
- Consented
- In Planning

Zones of Theoretical Visibility
Operational and Consented Sites and Airigh

Note
This Zone of Theoretical Visibility (ZTV) has been generated using ESRI ArcGIS Spatial Analyst extension. The digital terrain model (DTM) has been derived from OS Terrain 5 dataset (+/- 2m) up to 20km from the turbine locations, and OS Terrain 50 dataset (+/-10m). Earth curvature has been included in the ZTV calculation and refraction of light has been applied using SNH guidance settings. The ZTV has been generated from a viewing height of 2m above ground level which falls within recommendations by “Visual Representation of Windfarms” prepared for Scottish Natural Heritage (SNH) February 2017 - Version 2.2.

The use of ZTV mapping at this stage is limited and the following assumptions should be noted:

- The ZTV has been generated using the proposed turbine locations for Sheirdrim. The baseline ZTV has been generated from Operational, Consented and Airigh turbine locations listed below.
- The proposed, operational and consented turbine blade tip heights that have been used for generating the ZTV are listed below:
  - Sheirdrim = 135m and 149.9m
  - Airigh = 131m, 138.5m and 149.5m
  - Freasdail = 100m
  - Gartnagrenach Farm = 34.2m
  - Cour = 111.3m
  - Deucheran Hill = 78m
  - Gigha and Extension = 43.5m and 53.8m
  - Eascairt = 100m
  - Kilchamaig Farm = 23.8m
- The ZTV is generated from a bare earth terrain and does not account for the screening effect of features within the landscape such as settlements and woodland. It does not indicate potential visual effects or show the likely significance of effects. It shows potential theoretical visibility only. The ZTV has been produced for the purpose of informing 'on the ground' visual assessment.
- The ZTV has been generated up to 80km from the proposed Sheirdrim turbines.

Sheirdrim Renewable Energy Development - EIAR
Landscape and Visual Amenity
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