

Bluesky 3D Models Used to Create VR Simulation of Offshore Wind Farm



3D models from Bluesky are being used to communicate plans for a new offshore wind farm in Scotland. The interactive models allow users to 'teleport' around a virtual environment, viewing the proposed turbine development from the coast in the real-world context of existing buildings and trees. Created by environmental consultancy company SLR and commissioned by Inch Cape Offshore Limited (ICOL), the scale 3D model has already been used for public consultations and a visual impact study for the proposed scheme off the east coast.

Created from high resolution aerial photography, the data supplied by Bluesky included a detailed and accurate 3D model of existing buildings and structures, together with a database of the exact locations of every tree in the study area. Using the Bluesky data,

SLR created a virtual reality model showing the proposed offshore wind farm, which will be home to up to 72 turbines and be sited around 15 kilometres off the Angus coastline. Covering an area of approximately 150 km², the project represents an important investment in Scotland's energy and could provide power for around half a million households.

Preview Switch On and Switch off

The SLR 3D model includes an interface which allows the user to transfer between certain locations within the model using a postcode search function, a scrollable map, place markers and predefined viewpoints, including places of interest and substations. In order to fully understand the visual impact of the proposed development, the model includes the option to 'switch on' and 'switch off' the turbines and navigate the model in bird's eye view mode as well as at ground level.

Robert Myers, Principal Visualisation and Virtual Reality specialist at SLR has stated that they also used a map of tree locations to enhance the visual aspect of the model. The data points were input into the scene and this allowed the VR engine to generate generic tree models. The accuracy of the data was paramount in order to create a credible representation of the scene, and knowing this was achievable this using the Bluesky data was critical to the project's success.

The SLR model has already been viewed by members of the public at pre-application consultation events, hosted by ICOL – a wholly owned subsidiary of Edinburgh based Red Rock Power, in Arbroath and St Andrews. The model will also inform an investigation of the landscape visual impact assessment of the proposed wind farm.