

Rye Park Wind Farm

Fact Sheet

9

May
2020

Electromagnetic Interference



Why was the assessment undertaken?

The siting of wind turbines has the potential to disrupt electromagnetic signals used in telecommunications, navigation and radar services.

An Electromagnetic Interference Assessment (EMIA) (contained at Appendix G.8 of the Modification Application Report) was prepared by DNV GL to assess the increase in tip height and removal of 12 wind turbines. The EMIA assessed the change in potential electromagnetic interference (EMI) impacts from the Approved Project to the Modified Project.

What was the approach?

The EMIA was prepared considering the relevant conditions of the Development Consent and in accordance with relevant guidelines including the Draft National Wind Farm Development Guidelines (EPHC, 2010).

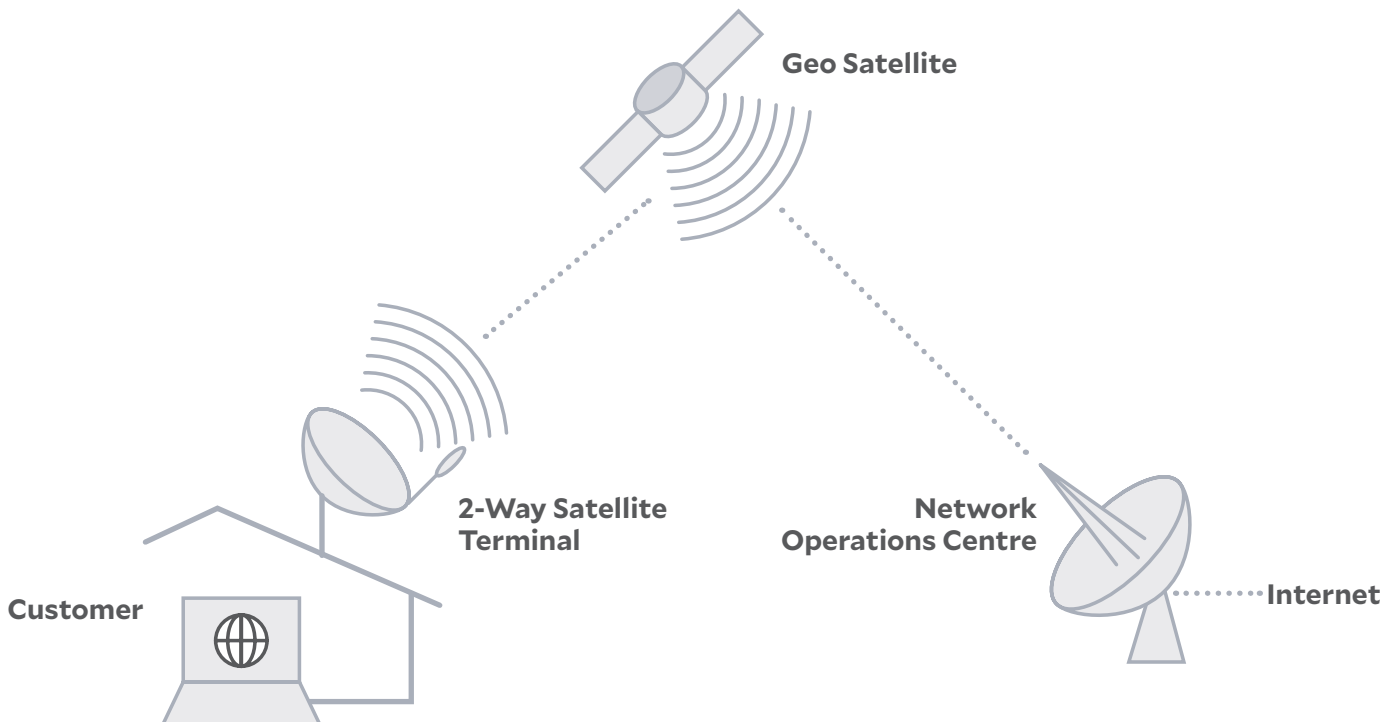


Diagram: Two-way connection to the internet via satellite

What did we find and how does it compare to the approved project?

The EMIA found:

- No increased impact to nearby radiocommunication towers, point-to-point links, emergency services communications, meteorological radar, trigonometrical stations, citizen's band radio communications, or satellite television and internet signals.
- Potential for interference with point-to-area style communications such as mobile phone signals, radio broadcasting and terrestrial television broadcasting, however mitigation measures are available to rectify potential impacts.
- Increased potential for cumulative impacts on mobile phone, radio, and television signals, however mitigation measures are available to rectify potential impacts.

What are the proposed mitigation strategies?

The table below outlines the mitigation measures available to curtail potential interference with point-to-area style communications (such as mobile phone signals, radio broadcasting and television broadcasting). Point-to-point links (these are often used for line-of-sight connections for data, voice, and video) are unlikely to be affected by the Project whilst mitigation measures for point-to-multipoint services will be determined in consultation with the relevant stakeholders.

License or service type	Available Mitigation Measures
Mobile Phones and Wireless Internet	Moving a short distance to a new or higher location until the signal improves or using an external antenna to improve the signal.
Wireless Internet	Moving outdoor antennas for impacted residences, micro-siting wind turbines or installing a new NBN tower.
Radio broadcasting (FM Radio)	Installing high-quality antennas or amplifiers at affected residences, increasing the broadcast signal strength from the transmission tower, moving the tower away from the wind farm or installing a signal repeater on the opposite side of the Project.
Television broadcasting	Realigning or relocating the resident's television antenna, tuning the antenna into an alternative source, installing a more directional or higher gain antenna, installing satellite television or installing a television relay station.

In accordance with the Development Consent, we will implement mitigation measures within one month following the report of any disruption to radio communication services as a result of the development. This is still appropriate to manage EMI related impacts of the Modified Project.

Assessment against Development Consent

The Modified Project can comply with the existing conditions of the Development Consent relating to electromagnetic interference.