

ALTERNATIVE USE OF OVERHEAD LINE TOWERS.

This document is for internal and contract specific use only.

Disclaimer

NGG and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements."

PURPOSE AND SCOPE

This policy defines the processes and procedures which shall be followed in order to assess the suitability and maintain the integrity of towers being used or considered for use with alternative activities, ie mounting cellular telecommunications equipment.

This policy applies to all National Grid (NG) owned towers that form part of the NG UK Transmission System (electricity).

PART 1 – POLICY

1 POLICY STATEMENTS

- 1.1** The effects from any additional imposed mechanical loading on a tower resulting from the alternative activity on that tower should be assessed against TGN(E)179. Results from that review do not permit mechanical overloading of the tower or that any restrictions are imposed on future transmission conductor reconfigurations.
- 1.2** No increased extension to the Rise of Earth Potential (ROEP) contours is permitted under a system earth fault or lightning condition on a tower supporting an alternative activity resulting from that activity.

For a new mobile phone base station installation (MPBS), this is managed using Electricity Association Engineering Recommendation G78 Issue 3, 2012, Recommendations for low voltage connections to mobile telephone base stations with antennae on high voltage structures, using the insulated base design (IBD) option detailed within Annex A. For a MPBS installation installed prior to the publication of G78 and which adopts a simple site earthing arrangement design, Earthing Risk Management document ERM R006, Retrospective Policy for ROEP at 2G MPBS sites, should be applied.

One exception to the requirements imposed within this section applies to MPBS installations using terminal/line end towers. It is deemed acceptable in this case to control step, touch and transfer potentials using the general requirements detailed within NGTS 3.1.2, Substation Earthing.

- 1.3** Current NG safety rules or work procedures shall not be compromised or effected by the alternative activity.
- 1.4** The installation of the additional equipment shall fully comply with NG Safety Rules Procedure G3 December 2007, Work on Cellular Installations 3.
- 1.5** Installation and subsequent maintenance of the additional equipment is not permitted when system access is required to undertake those activities.
- 1.6** Equipment used for activities other than those associated with the transmission business shall be designed, manufactured, installed and maintained in accordance with recognised

standards and quality procedures. An approved contractor shall, in accordance with their accredited and agreed work practices, carry out work on such equipment.

- 1.7** Any reduction in the effectiveness of any device used to restrict access by unauthorised persons onto the tower, or its modification, is not permitted.
- 1.8** NG reserve the right to have equipment removed from locations where failure to meet policy is found.

2 DESIGN DOCUMENTATION AND AUDIT

- 2.1** In order to ensure appropriate legislation and policy compliance, NG retain the reasonable rights to audit installation project files and records.
- 2.2** Third party operators shall maintain and make available at NG's request accurate site records of all installations. Those site records as a minimum requirement will include full design information and equipment layout drawings, compliance check sheets, update information and site commission dates.

PART 2 – DEFINITIONS AND DOCUMENT HISTORY

3 DEFINITIONS

3.1 Mobile Phone Base Station (MPBS)

An installation owned or operated by a mobile phone operating company for the purpose of transmitting and/or receiving mobile phone communications signals.

4 AMENDMENTS RECORD

Issue	Date	Summary of Changes / Reasons	Author(s)	Approved By (Inc. Job Title)
1	February 2004	New Document	Alan Ainsley Asset Policy	Trevor Jones Asset Policy Manager
2	June 2004	Additional statement added (para 1.5)	Alan Ainsley Asset Policy	Trevor Jones Asset Policy Manager
3	January 2015	Document review - NGT references removed – references checked and confirmed	Neil Loftus Asset Policy	Jon Fenn Head of Network Engineering

5 IMPLEMENTATION

5.1 Audience Awareness

Audience	Purpose Compliance (C) / Awareness (A)	Notification Method Memo / letter / fax / email / team brief / other (specify)
ETAM	C	email
Capital Delivery	C	email
OHL Delivery Vehicles	C	email