



To Company Secretary  
Distribution Network Operators

*Promoting choice and value for  
all gas and electricity customers*

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Date: 2 September 2011

Dear Company Secretary,

**Direction pursuant to paragraph 25.2 of the electricity distribution licence relating to the preparation and maintenance of the Long-Term Development Statement**

In our letter of 3 August 2011 we gave notice of our intention to issue a direction under paragraph 25.2 of the electricity distribution licence. This sets out the requirement to prepare and maintain the Long-Term Development Statement (the "Statement") as detailed in the provisions of paragraph 25.2 and 25.3 of the electricity distribution licence granted under section 6(1)(c) of the Electricity Act 1989.

No representations have been made in relation to the Notice sent to electricity distribution network operators<sup>1</sup> on 3 August. Therefore, in accordance with these licence provisions, we now enclose a Direction (attached here) in the same form as that sent to you in the Notice.

The Direction puts in place a revised Form of Statement ("FoS") that essentially specifies the manner in which the information contained in the Statement is presented. Annex 1 of the Direction sets out the FoS and Annex 2 contains the reasons why the Authority is making the Direction.

The provision of network data, particularly in relation to the connection of distributed generation, is of growing interest. We will, with the DNOs, consider the further development of the Statement/FoS where this can be shown to be justified.

Please do not hesitate to contact me on 020 7901 7194 if you have any queries regarding this letter.

Yours sincerely,

**Rachel Fletcher**  
**Partner – Distribution**

<sup>1</sup> DNOs are Distribution Services Providers as defined in standard licence condition 1 of the electricity distribution licence.

**DIRECTION ISSUED PURSUANT TO PARAGRAPH 25.2 OF THE ELECTRICITY  
DISTRIBUTION LICENCE (Long-Term Development Statement)**

Whereas:

- (i) [Distribution Network Operator] (the "Licensee") is the holder of an Electricity Distribution Licence (the "Licence") granted under section 6(1)(c) of the Electricity Act 1989 (the "Act").
- (ii) In accordance with paragraph 25.6 of the Licence the Gas and Electricity Markets Authority (the "Authority") on 3 August 2011 gave notice to the Licensee ("the Notice") and set out the proposed contents of this Direction.
- (iii) The Authority has considered all representations which were made and not withdrawn.

Now, for the reasons specified in Annex 2 to this Direction, the Authority directs pursuant to paragraph 25.2 of the Licence that the Licensee must publish its Long-Term Development Statement in a form consistent with the Form of Statement attached at Annex 1 to this Direction by 2 December 2011.

This Direction contains the reasons for the Authority's decision and constitutes notice pursuant to section 49A of the Act.

**Dated: 2 September 2011**

A handwritten signature in black ink, appearing to read 'Rachel Fletcher', is positioned above the printed name and title.

**Rachel Fletcher**  
**Partner - Distribution**  
**Duly authorised by the Authority**

**Annex 1 of the Direction issued pursuant to paragraph 25.2 of the licence**  
**FORM OF LONG TERM DEVELOPMENT STATEMENT**

The Long Term Development Statement (the "Statement") has four constituent parts:

- the Introductory Section
- Summary Information
- Detailed Information, and
- Development Proposals.

**INTRODUCTORY SECTION**

This is a stand-alone section that is part of the Statement. It will be published on the Licensee's website without the need for registration of user details and be provided free of charge to people in hardcopy on request. It contains sufficient information to enable any person to understand the scope of the information contained within the Statement and to assess whether it would be of use to them.

This Introductory Section describes the:

1. Purpose of the Statement

This explains the purpose of the Statement, consistent with standard condition 25 of the electricity distribution licence, which includes:

- Improving availability of distribution network information
- Furnishing developers with sufficient information to carry out initial assessments on network capability
- Informing users of development proposals for the distribution network
- Informing members of the public of the correct point of contact within distribution companies for specific enquiries

2. Content of the Statement

2.1 Summary Information

This explains that the content of the Summary Information section of the Statement includes:

- High level information relating to the design and operation of all voltage levels of the distribution network
- Small scale geographic plan(s) providing an overview of the 132kV (except in Scotland), EHV networks and substations described in the detailed information section

2.2 Detailed Information

The Introductory section states that detailed information is provided for 132kV networks (EHV in Scotland) to the lower voltage busbars of primary substations but includes details of any interconnectors at lower voltages that are needed to assess the capability of the higher voltage networks. This explains that the content of the Detailed Information section includes:

- Schematic diagrams detailing normal operating configurations of the distribution network
- Circuit data
- Transformer data
- Load information
- Fault level information
- Generation information

### 2.3 Network Development Proposals

This explains that the content of the Network Development Proposals section includes:

- For network development proposals where finance has been secured, details of the:
  - Work that is intended to be carried out
  - Expected timescale
  - Impact on the distribution network
- A high level summary of the interest in defined parts of the distribution network
- Summary details of design policies and practices to assist a user assess potential future development of the distribution network, based on the detailed information within the Statement

### 3. Contact Point within the Distribution Company for Further Information/Feedback

The Introductory Section should include details of the contact point within the distribution company to:

- Request a copy of the Statement.
- Discuss a specific enquiry relating to a new connection to the distribution network
- Discuss a specific enquiry relating to an existing connection to the distribution network
- Request further information/clarity relating to the data contained in the Statement, and
- Provide feedback on any aspect of the Statement.

### 4. Relationship to Other Information Sources

The Introductory Section will provide links to other related information sources, including:

- The Distributed Generation Connection Guide
- The Guaranteed Standards for the provision of budget estimates and formal quotations for distributed generation connections
- Guidance on the process for requesting network data additional to that contained in the Statement.

**SUMMARY INFORMATION**

This section includes information about:

- Design philosophies and practices
- Engineering recommendations and standards (references to information sources)
- High level summary of the structure of and design policies applied to the lower voltage networks (20kV and below)
- General network characteristics including descriptions of:
  - Standard plant and equipment sizes used
  - Harmonics (design standards and areas where harmonic levels are known to be an issue)
  - Methods of earthing used on different voltage levels or regions
  - Protection systems used
  - Network automation (existing usage and strategy for extension)
  - Use of auto-reclosers (design policy and preferred settings)
  - Operating voltages (target and bandwidth) for each voltage level of the distribution network
  - Use of line drop compensation
  - Load management areas
  - Areas where constraints or other restrictions are used to maximise network utilisation
- The approximate locations of 132kV and EHV circuits and substations are shown on geographic plan(s) of sufficient scale to allow a user to identify if there is network at these voltage levels in an area.
- Other sources of network and charging information published by the distribution company including competition in connections information (references to other sources of information are sufficient, provided that the method of obtaining the information is clearly identified).
- Any transmission or distribution networks connected to the distribution network detailed in the Statement (with interface points clearly identified), together with a contact point within other companies for information (a website address/or company name and head office address is sufficient).

**DETAILED INFORMATION**

This section contains details of the 132kV networks (EHV in Scotland) to the lower voltage busbars of primary substations (including details of any interconnectors at lower voltages that are needed to assess the capability of the higher voltage networks).

Schematic diagrams shall be provided of sufficient scale and clarity to assist a user in interpreting and using the detailed network information. As a minimum, the nomenclature relating to substations on the schematic diagrams shall be consistent with that used in the relevant accompanying data tables. Normal open points shall be clearly indicated on all schematic diagrams and where named must also use consistent nomenclature on both diagrams and tables.

Information is provided for:

- Circuits (Table 1)
- Transformers (Table 2)
- Load (Table 3)
- Fault level (Table 4)
- Generation (connected and connection offers accepted, table 5)

This document will also highlight where assets included in the previous year's Statement have been decommissioned. This can be achieved either using Tables 1, 2 and 5 of the Detailed Information and/or by providing this information in the Development Proposals section.

This section shall explain how other information can be made available for a specified part of the distribution network on request. The main categories of this information shall be listed in the Statement and include:

- Circuits - Zero sequence impedance data
- Circuits – Susceptance data for voltage levels other than 132kV
- Transformers – Zero sequence reactance data
- Transformers – Earthing details (including identification of hot substation sites)
- Load – Details of the limitation on the firm capacity of a substation
- Fault level – Details of each contribution to fault current at a node
- Calculated level of rms break currents decremented to the expected protection operation time
- Details of the limitation on the fault level rating at on or more specified nodes
- Indicative cost of relieving the limitation and the resulting increase in fault level headroom

The Statement clearly describes the procedure for obtaining this information, which requires the:

Person making the request to define the specific:

- Areas of interest including details of the substation group and the substation or busbar node names
- Information required (selected from the options provided in the Statement)

Distribution company to define the:

- Contact point for information requests
- Timescales for providing information
- Cost for providing additional information
- Format in which the information will be provided (tabular or narrative)

TABLE 1 – CIRCUIT DATA

S/S Group	S/S or Busbar Name		Operating Voltage	Positive Sequence Impedance		Susceptance	Rating Information	Circuit Length
	Node 1	Node 2		R	X	B		
			kV	% on 100 MVA base			Amps or MVA	km
				Note 3		Note 4	Note 5	Note 6

## Notes

1 Data should be clearly linked with transformer data, loading information and network schematic diagrams contained within the Statement.

2 100 MVA is suggested as a convenient base for impedance data.

3 If X and R values are not stored separately within the licensee's distribution network model then an X/R ratio is an acceptable replacement for the X and R fields in this table.

4 Susceptance information should be included for 132kV networks and available on request at other voltage levels.

5 Rating information that is used by the licensee should be provided together with any explanatory note required to assist a user to interpret the information.

6 Details of circuit length should be included in this table or clearly marked on schematic diagrams unless this information can be estimated by the user from the geographic plans within the Statement.

TABLE 2 – TRANSFORMER DATA

S/S Group	S/S or Busbar Name				Vector Group	Positive Sequence Impedance		Zero Sequence Reactance	Tap		Transformer Rating	Reverse Power Capability	Method of Earthing
	Node 1	Voltage	Node 2	Voltage		R	X		Minimum	Maximum			
		kV		kV		% on 100 MVA base			%	%	MVA	MVA	
						Note 2	Note 3		Note 4			Note 5	

## Notes

1 Data should be clearly linked with circuit data, loading information and network schematic diagrams contained within the Statement

2 100 MVA is suggested as a convenient base for impedance data.

3 Zero sequence reactances should be included for 132kV networks and available on request at other voltage levels

4 The tapping range can be expressed as a percentage provided that the voltage base is clearly defined.

5 If the reverse power capability of a transformer has not been assessed, this should be shown as "NOT KNOWN" in this table

6 This table should be supplemented by narrative that provides a clear explanation of the characteristics and model of any non-standard items of plant



TABLE 3 – LOAD INFORMATION

S/S Group	S/S or Busbar Name	Voltage Level	Maximum Load of Previous Year		Forecast Load Information					Firm Capacity of S/S	Maximum Load Scaling Factor
			Note 2	Note 2	Year 1	Year 2	Year 3	Year 4	Year 5		
		kV									
			Notes 3 and 5	Notes 4 and 5	Note 6					Note 7	Note 8

## Notes

1 Data should be clearly linked with network schematic diagrams

2 Maximum load information for the previous year would be detailed as a description of the existing system

3 Unit of measurement (MW or MVA) should be clearly defined (either is acceptable)

4 Reactive power requirement of the network can be recorded as reactive power demand (MVAr) or quoted as a power factor

5 Estimated values should be clearly identified within the table or by a generic statement Forecast load information (define unit as MW or MVA) for five years should be provided. Where this applies to a single customer, then the

6 distribution code submission (or equivalent) from the customer should be used.

7 A clear definition of firm capacity should be provided

8 Minimum load scaling factor can be defined within the table or by a generic statement

TABLE 4 – FAULT LEVEL INFORMATION

S/S Group	S/S or Busbar Name	Voltage Level	System Impedance		Existing System Fault Currents		Rating	
			R	X	Peak Make	rms Break	Make	Break
		kV	% on 100 MVA base				kA	kA
			Note 2	Note 2	Note 3	Notes 3 and 4		
			Notes 5 and 6					

## Notes

1 Data should be clearly linked with network schematic diagrams contained within the Statement.

2 100 MVA is suggested as a convenient base for impedance data.

3 Calculated fault currents should include all relevant contributions from synchronous and induction machines as well as other parts of the distribution network and other connected networks (transmission and distribution). A clear definition of the method used to calculate fault currents (including a description of the application of engineering recommendation G74) should be provided in this or the summary information section.

4 The undecrementd rms break current may be provided (as long as clearly defined with accompanying explanatory note)

5 Three phase fault level information should be provided for nodes with switchgear installed.

6 Single phase fault level information should be provided for nodes with switchgear installed where single phase faults are more onerous than three phase faults.

TABLE 5 –GENERATION

S/S Group (Grid Supply Point)	Supply Point	Primary Substation	Connection Voltage (kV)	Installed Capacity	Fuel Type	Connected / Accepted
Note 1	Note 1	Note 1	Note 4	Notes 2 and 3	Notes 4 and 5	Note 6

## Notes

1 Nomenclature used for substation names shall clearly align with that on the schematic diagrams.

2 1MVA is suggested as the minimum installed capacity for inclusion in the table.

3 Unit of installed capacity (MW or MVA) should be clearly defined (either is acceptable)

4 Generation may be aggregated by connection voltage and fuel type for any one particular substation.

5 Fuel type is split by the following categories:

- Onshore Wind ( $\geq 1$  MW)
- Offshore Wind ( $\geq 1$  MW)
- Tidal stream & wave power ( $\geq 1$  MW)
- Biomass & energy crops (not CHP) ( $\geq 1$  MW)
- Waste incineration (not CHP) ( $\geq 1$  MW)
- Photovoltaic ( $\geq 1$  MW)
- Small CHP ( $\geq 1$  MW,  $< 5$  MW)
- Medium CHP ( $\geq 5$  MW,  $< 50$  MW)
- Large CHP ( $\geq 50$  MW)
- Other generation ( $\geq 1$  MW)

6 A statement of whether the generation is already “connected” or “accepted” i.e. a connection offer has been accepted, but the generator is not yet connected.

## DEVELOPMENT PROPOSALS

The Statement shall clearly identify areas of the network that are expected to reach or exceed their capability within five years of the date of publication of the information. This may be highlighted in Tables 3 and 4 (within the Detailed Information section) or shown separately within the Development Proposals section.

For development proposals on the network described in the detailed information section of the Statement, where finance has been secured (either within the company or from a third party) and as such the proposal can be viewed as firm, the following details shall be included in the Statement:

- Area of the network affected
- Outline of the planned works
- Reason for carrying out the works
- Expected timescale
- Expected impact on distribution network capability (including details of any network capability limitation that is relieved)

In order to assist users of the Statement in understanding whether or not a development proposal may impact on their plans, all firm development proposals shall be grouped by grid supply point.

Detailed information of planned additions to the network is provided, where available, in line with Tables 1 to 5, so that the user can make an assessment of future opportunities on the distribution network.

The Statement shall contain a description of design policies and practices that are used by the licensee to assess the distribution network and identify likely options for its development. A user should have sufficient information to make a reasonable assessment of likely developments on the distribution network, using the detailed information within the Statement about the current network and the firm development proposals. This includes a description of the process for managing network development at interface points with other transmission and distribution networks.

A high level summary of interest in demand and generation connections to parts of the distribution network described in the detailed information section shall be provided (Table 6). This summary will be a snapshot of activity on a particular date that is clearly stated in the Statement. A table is required for each substation group defined in the Detailed Information section. This is likely to be at the main interface points between the 132kV and EHV distribution networks (interface with transmission network in Scotland) or other similarly sized defined parts of the distribution network.

**TABLE 6 – TABLE OF INTEREST IN A CONNECTION**

Grid supply point	Supply point	Primary substation	Proposed connection voltage (kV)		DEMAND		GENERATION	
					Number received in previous year		Number received in previous year	
					Total Number	Total Capacity	Total Number	Total Capacity
Note 1	Note 1	Note 1	Note 3			Note 2		Note 2
				Connection offers accepted by customer				
				Connection offers made (not yet accepted by customer)				
				Budget estimates provided				

**Notes**

1 Nomenclature used for substation names shall clearly align with that on the schematic diagrams.

2 1MVA is suggested as the minimum installed capacity for inclusion in the table.

3 Generation may be aggregated by connection voltage

This should inform the user of the Statement of the level of interest in each area of the network and will assist in the analysis of future opportunities on the distribution network.

## **GENERAL STATEMENT REQUIREMENTS**

### **File Format**

The Statement will be published in a format suitable for use by other parties. This will be in Adobe PDF format with **all** accompanying data tables provided in Microsoft Excel 2003 or similar spreadsheet format.

### **Frequency of Update and Availability**

The Statement and all its accompanying data shall be refreshed with the latest Licensee's data annually and published by the end of November each year.

In addition to the November publication, the Statement shall be supplemented with updates to the licensee's firm development proposals and generation data by the end of May each year. This supplement shall include the following details:

- Area of the network affected
- Outline of the planned works
- Reason for carrying out the works
- Expected timescale
- Expected impact on distribution network capability (including details of any network capability limitation that is relieved)

Detailed information of planned changes and additions to the network is to be provided, where available, in a format consistent with Tables 1 to 5 of the detailed information. This allows users to update the full data set published in November and make an assessment of future connection opportunities on the distribution network. For the avoidance of doubt the tables themselves in the November document will not be updated for the May supplement but Table 6 will be updated and published as part of the May update.

The November publication of the Statement will, wherever possible, keep to the same format as the previous year's Statement so as to aid the user in their identification of any changes that may affect them. Wherever a data entry has been changed or added, this shall be highlighted

In order to assist users of the Statement in understanding whether or not a development proposal may impact on their plans, all firm development proposals shall be grouped by grid supply point.

The detailed (November) version of the Statement shall be made available on the DNO's website following registration of user details. The May supplement is also to be made available to registered users on the DNO's website.

### **Cost**

The Statement will be free of charge until Ofgem decides otherwise.

## **APPENDIX 1 – PROCESS FOR ASSESSING TREATMENT OF CUSTOMER SPECIFIC INFORMATION**

For information that the licensee considers to fall into the category referred to in paragraph 8 of standard licence condition 25 of the distribution licence, (“to relate to the affairs of a person where publication of that matter would or might seriously and prejudicially affect his interests”), then the following process should be adopted.

Q1. Does the information need to be disclosed by the licensee to fulfil the obligations under SLC 25 of the distribution licence?

YES

Not in breach of Section 105 of the Utilities Act 2000 or SLC 39 of the distribution licence

NO

Omit the information from the Statement

Q2. Does the information relate to an individual (i.e. not to a company)?

NO

Data Protection Act does not apply

YES

Licensee must be satisfied that disclosure of the information complies with the Data Protection Act

Q3. Does the customer object to disclosure of the information?

YES

NO

Include the information in the statement

Q4. Can the customer’s objection be resolved by the licensee presenting the information in a different format in the Statement?

NO

YES

Include the information in the Statement in that format

Q5. Would the customer accept that the information would be made available following a specific request from a user of the Statement?

NO

YES

Reference information in the Statement and provide it to any user who specifically requests it

Q6. Refer matter for determination by the Authority under paragraph 9 of SLC 25 of the distribution licence providing details of the:

- Specific issue
- Discussions between licensee and customer

In considering its decision, the Authority may choose to contact the customer directly.

Note:

Where such information may be involved, it is essential that this process is started early enough to enable any issues to be resolved without causing a delay to the publication of the Statement.

## **Annex 2 of the Direction issued pursuant to paragraph 25.2 of the licence**

### **THE AUTHORITY'S REASONS FOR GIVING A DIRECTION PURSUANT TO PARAGRAPHS 25.2 OF THE LICENCE**

The LTDS was first introduced in 2002. In 2007 we carried out a consultation to establish how well the LTDS was fulfilling its objectives and whether any changes were needed. Based on the consultation responses, we decided that changes were not required.

The LTDS was discussed with stakeholders again as part of the 5<sup>th</sup> Distribution Price Control Review. We committed to consult again on the form, content and accessibility of the LTDS. We did this in 2010 and published our decision letter<sup>2</sup> in September 2010.

The reason for this direction is to enact the conclusions reached as a result of the consultation as set out in the decision letter of 22 September 2010.

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<sup>2</sup> [Decision letter - 22 September 2010](#)