



C O U N T I E S P O W E R

Distribution Code

Part 6: Distribution Operation Code

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Distribution Code – Part 6: Distribution Code

1.0 Introduction

The Distribution Operations Code (DOC) specifies criteria and procedures to be complied with by Counties Power in the operating of its distribution system. The DOC also applies to users of the distribution system in terms of the operating of their systems and installations insofar as they affect the operation of the distribution system.

The DOC deals with various operational matters affecting users, including the provision of forecasts of likely demand, the planning of Counties Power distribution system outages and generating plant outages, the reporting of operational changes and events, safety matters, and procedures for dealing with contingencies.

It is relevant to all stakeholders including electricity retailers, electricity users, developers, contractors, consultants and shareholders.

This standard forms part of our Distribution Code, which comprises six parts, all of which are available from Counties Power's website www.countiespower.com, each covering a specific set of requirements

Part 1: General Requirements

Part 2: Network Connection Standard

Part 3: Metering Requirements for Electrical Installations

Part 4: Distributed Generation Requirements

Part 5: Signalling and Technical Interference

Part 6: Distribution Operation Code (this document)

Definitions of terms and abbreviations are found in section 14.1 of Part 1 of this code.

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2.0 Safety Co-Ordination

2.1 Outline

This section specifies the Safety Management System criteria to be applied by Counties Power to meet statutory requirement and other relevant codes, imposed upon owners and operators of Counties Power distribution system.

Similar criteria and standards of Safety Management Systems are required to be provided by other users of the distribution system when carrying out work or tests at the operational interface with Counties Power.

2.2 Objective

The objective is to lay down requirements with a view to ensuring safety of persons working on the distribution system and at or across operational and ownership boundaries.

2.3 Procedure

This section of the Distribution Code is to be applied by Counties Power and all user of Counties Power's distribution system and those who interface with it, including:

Embedded generators.

Other EDs connected to Counties Power distribution system.

Customers who take supply at high voltage.

Any other party reasonably specified by Counties Power, including Contractors working on or near Counties Power distribution system.

2.3.1 Safety Management Systems

The *NZS 7901:2014 Electricity and Gas Industries – Safety Management Systems for Public Safety* specifies the principles and procedures, and where appropriate, the documentation to be applied, to ensure the health and safety of all who are liable to be working or testing on the Counties Power distribution system, or on plant and apparatus connected to it. Such a system will be established by Counties Power and other users as specified in this document.

2.3.2 Operational Boundaries and Principles

At sites or location where an operational boundary exists, which Safety Management System is to be adopted and when, shall be jointly agreed. This

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will include provision for Control Persons to operate to the Safety Management Systems in use by field personnel where appropriate.

A system of documentation shall be maintained by Counties Power and the user which records the inter-system safety precautions taken when:

- work or testing is to be carried out on high voltage plant and/or apparatus across the operational Boundary;
- isolation and/or earthing of the other parties system is needed.

Where relevant, copies of the Safety Management Systems and related documentation shall be exchanged between Counties Power and users for each operational boundary, and also, where appropriate, for each working occasion.

2.3.3 Authorised Personnel

The Safety Management System must include the provision for written authorisation of personnel concerned with the control, operation, work, or testing of plant and apparatus forming part of, or connected to, Counties Power distribution system.

Each individual authorisation shall indicate the class of operation and/or work permitted, and the section of the system to which the authorisation applies.

2.3.4 Environmental Safety

Arrangements shall be made by all parties to ensure that personnel are warned, by an appropriate means, of hazards specific to any site, before entering any area of the site. This shall include hazards that may be temporary or permanent. Where these risks include contamination or similar, suitable decontamination facilities and procedures shall be provided.

Arrangements shall be made to facilitate inspections by Counties Power management and safety representatives to site accommodating Counties Power owned plant and apparatus.

2.3.5 System Control

Control Responsibilities

Counties Power and users shall jointly agree and set down in writing schedules specifying the responsibilities for System Control of equipment. These shall ensure that only one party is responsible for any item of plant or apparatus at any one time.

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Counties Power and each user shall at all times have nominated a person or persons responsible for the co-ordination of safety from the system pursuant to this section of the Distribution Code.

Control Documentation

Counties Power and users shall maintain a suitable system of documentation which records all relevant operational events that have taken place on Counties Power's distribution system or any other system connected to it, and the co-ordination of relevant safety precautions for work.

All documentation relevant to the operation of the distribution system, and to safety precautions taken for work or tests, shall be held by Counties Power and the appropriate user for a period of not less than one year.

System Diagrams

Diagrams illustrating sufficient and up to date information for control personnel to carry out their duties shall be exchanged by Counties Power and the appropriate user.

Communications

Where Counties Power reasonably specifies the need, suitable communication systems shall be established between Counties Power and other users to ensure the control function is carried out in a safe and secure manner.

Where Counties Power reasonably decides that a back-up or alternative routing of communication is necessary to provide for the safe and secure operation of Counties Power distributor system, the means shall be agreed with the appropriate users.

Schedules of telephone numbers/call signs shall be exchanged by Counties Power and appropriate users to enable control activities to be efficiently co-ordinated.

Counties Power and appropriate users will establish 24 hour availability of personnel with suitable authorisation where the joint operation requirements demand it.

2.3.6 Responsibility

Ownership, Operation and Maintenance Schedules

Schedules specifying the responsibilities for ownership, operation and maintenance shall be jointly agreed by Counties Power and appropriate users for each location where an operational interface or joint responsibilities exist.

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Maintenance of Schedules and Diagrams

All schedules and diagrams shall be maintained by Counties Power and appropriate users and exchanged as necessary to ensure they reflect the current agreements and network configuration.

3.0 Demand Forecasts

3.1 Outline

In order for Counties Power to operate Counties Power's distribution system efficiently, and to ensure maximum system security and system stability, Counties Power must be able to forecast loadings on its system with sufficient accuracy and for a sufficiently long forward period to enable it to plan the development of its system. It must also obtain sufficient information to enable it to comply with the requirements of Transpower which specifies the Transpower requirements regarding demand forecasting. This section of the Distribution Code discusses the information which an ED must obtain, either from its own records or from users of its distribution system, so that these requirements can be met.

3.2 Scope Of Forecasts

This section applies to the following users of the Counties Power distribution system:

- Embedded or distributed generators with generating plant over 1 MW.
- Any other ED connected to Counties Power distribution system.
- Electricity Retailers on behalf of their customers who are connected to Counties Power distribution system.
- Direct supply customers with demands over 1 MW.

3.3 Data and Information Flow

3.3.1 Demand Forecast Information

Counties Power will co-ordinated all demand forecast information for each Transpower supply point, to meet the requirements of Transpower Connection Code.

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3.3.2 Generation Output Information

Information relating to generating plant embedded in Counties Power's distribution system and not subject to central despatch, shall be provided, where specified, to Counties Power.

Customers with own generation will be required to furnish such information as Counties Power may reasonably consider would affect its demand forecasts.

3.4 Information Required

In order to comply with the requirements of Transpower, Counties Power will be required to forecast, for each busbar from which it takes supply or proposes to take supply from Transpower, the following information for each of the following ten years commencing on the following 1 April:

- Winter maximum half-hour demand MW
- Winter after diversity maximum half-hour demand MW
- Winter power factor
- Summer maximum half-hour demand MW
- Summer after diversity maximum half-hour demand MW
- Summer power factor
- Total annual energy demand GWh

Such information is required to be supplied by Counties Power to Transpower by 31 August each year. All information required by Counties Power from users to enable it to satisfy the above requirements shall be in writing in a format approved by Counties Power and shall be supplied at such times of the year as may be agreed between the user and Counties Power.

References above to information to be supplied on a half-hourly basis refers to its being supplied for each period of 30 minutes ending on the hour and half-hour throughout each day.

Where Counties Power owns and reads the meters installed to monitor the electrical energy of all customers connected to its distribution system, or where contractual arrangements exist which ensure that Counties Power has access to such meter readings, Counties Power will derive the above and such other

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information as it may require to enable it to meet the objectives outlined in Section 2.1 above.

Where Counties Power does not have assured access to meter readings as outlined above, users will be requested to provide the above or any other information which Counties Power reasonably deems necessary to enable it to meet the objectives outlined in Section 3.1 above.

In addition to the information described above, users will provide Counties Power with their forecasts of additions or reductions in load arising from:

- Expected increases or decreases of 100kW or more in the load of any one customer
- Expected increases or decreases in total load arising from new or permanently removed connections of 100kW or more each to or from Counties Power distribution system
- Expected aggregate increases or decreases in total load arising from new, or removed connections or increased or decreased loads not included in (i) or (ii) above

Information may, at the discretion of Counties Power, be required to be divided into specific geographical areas to enable Counties Power to comply with the requirements of Transpower, or for its own purposes.

4.0 Outage Planning

4.1 Outline

In order to plan and co-ordinate its construction, maintenance and operational activities internally and with activities of users and Transpower, Counties Power must be aware of planned outages of users' major plant and apparatus which may affect the operation of Counties Power distribution system, or require the commitment of Counties Power resources. This section of the Distribution Code establishes procedures to enable the collection of such data from the following users of Counties Power distribution system:

- Embedded generating plant in Counties Power's distribution system whose maximum generating capacity is greater than one MW, and which is not subject to central despatch.
- Another ED connected to Counties Power distribution system.

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- Electricity Retailers on behalf of themselves and their customers who are connected to Counties Power distribution system.
- Customers with own generation where Counties Power reasonably considers it appropriate.
- Direct supply customers connected to the high voltage distribution system where Counties Power reasonably considers it appropriate.

The means of providing the information to Counties Power, and its confirmation, includes any written form or any suitable and agreed means of electronic transfer which enables the recipient to retain the information. The information requirements set out in the relevant Transpower Connection Codes will be taken account of where appropriate.

4.2 Procedures

4.2.1 Embedded Generating Plant

Information relating to embedded generating plant not subject to central despatch, and whose maximum generation capacity is greater than one MW, shall be provided directly to Counties Power as may be specified in the relevant Connection Agreement. This may include customers with own generation where Counties Power considers it appropriate.

Counties Power will obtain scheduling information from generators for all embedded generating plant not subject to central despatch, where it considers it appropriate. The scheduling information will specify the following on an individual generating unit basis:

- The period the unit is required.
- The planned half-hourly output.
- Any other information Counties Power considers necessary.

4.2.2 Other Plant and Apparatus

Information relating to all plant and apparatus connected to the distribution system, or that which may affect its operation, shall be co-ordinated with Counties Power and shall be as specified in the relevant Connection Agreement.

4.3 Time Scales and Data

Users to whom this section of the Distribution Code applies will supply to Counties Power within time scales agreed with Counties Power all information which may reasonably be laid down by Counties Power from time to time in

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accordance with the relevant Connection Agreement. Due recognition will be given by Counties Power to voltage levels and capacities of plant and apparatus when assessing information requirements.

Subject to any local agreement between Counties Power and any users, users will in general be required to provide Counties Power with details of planned outages of any plant or apparatus which may affect the operation of the distribution system, according to criteria specified by Counties Power at the time of entering into any Connection Agreement between the user and Counties Power. Such information, will be based on years beginning on 1 April in any year, and, where practicable, can be expected to cover the following time scales:

- Long Term - One calendar year ahead and beyond
- Medium Term - Three months to one year ahead
- Short Term - Twenty-four hours to three months ahead

Note that, except in an emergency or as otherwise agreed between the parties, a minimum of 24 hours' notice of any outage to which this section of the Distribution Code applies must be given by the user to Counties Power.

The sections below are presented as a guide to what information may be exchanged by the parties to enable Counties Power to meet the objectives outlined in Section 3.1 above.

4.3.1 Long Term Programme

Counties Power will prepare a long term outage programme covers the period beyond twelve months to include those known distribution system outages and outages of embedded generation not subject to central despatch which may affect performance of the total system, as well as planned outages of other major plant and apparatus. Loading implications of such outages will be included.

Provisional information will be provided by users to Counties Power and, users must notify Counties Power of any significant factors which will affect the programme.

Following receipt of the required information, Counties Power and the users providing the information will finalise outage plans for incorporation into the long-term programme.

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4.3.2 Medium Term Programme

Counties Power will also prepare a medium term outage programme covering the period from three months until twelve months ahead. This programme will include those known distribution systems outages and outages of embedded generation not subject to central despatch which may affect performance of the total system, as well as planned outages of other major plant and apparatus. Loading implications of such outages will be included.

Provisional information to enable Counties Power to prepare such a programme will be supplied by users to Counties Power not less than four months prior to the beginning of the period covered by the programme and will be updated monthly to cover a rolling nine month period. This information will be based on the agreed long-term programme, but will include those outages not foreseen at time of preparation of the long-term programme. During the period following receipt of this information, and before the programme comes into effect, Counties Power and relevant users will agree on the dates to be incorporated in the programme.

4.3.3 Short Term Programme

A short-term outage programme covering the period from twenty four hours until three months ahead will be prepared by Counties Power. This programme will include those known distribution system outages and outages of embedded generation not subject to central despatch which may affect performance of the total system, as well as planned outages of other major plant and apparatus. Loading implications of such outages will be included.

Provisional information to enable Counties Power to prepare such a programme will be supplied by users to Counties Power not less than one week prior to the beginning of the period covered by the programme and will be updated weekly to cover a rolling three month period to enable the programme to be updated accordingly. This programme will be based on the agreed medium term programme, but will include those outages not foreseen at the time of preparation of the medium term programme.

Not less than two weeks before the scheduled time of a particular outage, at the time of updating the programme, the following details relevant to that outage will be provided by the user to Counties Power:

- Return to service times of circuits if different from programme or not previously detailed.
- Specific plant and apparatus to be worked upon.

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- Any other information that may be reasonably specified by Counties Power from time-to-time.

Any decision to depart from the outages and actions determined at this time must be immediately notified to Counties Power who will inform other affected parties.

4.3.4 Unplanned Outages

From time-to-time, there will arise a need for outages to be scheduled for urgent work to be carried out sooner than they can be incorporated in the short-term plan. The handling of such outages will be agreed between Counties Power and relevant user(s) in accordance with procedures specified in the relevant Connection Agreement. Communication and co-ordination during outages caused by faults on the distribution system or plant or apparatus of any user will also be in accordance with procedures agreed at this time.

4.4 Special Arrangements for Vital Plant

From time-to-time, certain plant connected either directly or indirectly to Counties Power's distribution system may be designated by Counties Power as vital plant because of its importance to system requirements, stability, and/or integrity. Plants so designated may include the following:

- Generation, installations, or loads which individually represent to carry a significant portion of the system load.
- Loads which from time-to-time may impose significant transient loadings on the distribution system.
- Loads which may have the potential to interfere with other loads re the production of harmonics etc.
- Highly capacitive or inductive loads which may have the potential to interfere with the propagation of superimposed signals or which could affect system stability.
- Load control equipment which in the event of failure or planned shutdown could have significant effects on Counties Power system loading.
- Transmission lines where alternative feeds would be unable to maintain statutory voltage because of loading constraints.
- Capacitor banks installed for voltage support.
- Any other loads so designated from time-to-time by Counties Power.

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Following identification of vital plant, Counties Power may, following discussion with interested parties, impose such special arrangements, additional to those outlined above, as it may deem appropriate for planned outages and restorations on such plant.

5.0 Testing and Monitoring

5.1 Outline

To ensure that Counties Power's distribution system is operated efficiently and within statutory standards, and also to meet other statutory requirements and actions, Counties Power will arrange and carry out testing and/or monitoring of the effect of users' electrical apparatus on Counties Power distribution system.

The testing and/or monitoring procedures will be specifically related to the technical criteria detailed in the relevant sections of the Distribution Code. They will also relate to the parameters submitted by users in the provision of any other relevant information required by Counties Power in accordance with any part of this Distribution Code.

This section of the Distribution Code specifies Counties Power requirement to test and/or monitor its ED distribution system to ensure that users are not operating outside the technical parameters required by any part of this Distribution Code.

5.2 Costs of Tests

At the discretion of Counties Power, Connection Agreements may contain schedules of charges to be levied on users for the carrying out of certain system tests under conditions specified in such agreements.

5.3 Procedures

This section of the Distribution Code applies to the following users of Counties Power distribution system:

- Direct supply customers
- Other EDs connected to Counties Power distribution system.
- Embedded generators
- Electricity Retailers and any customer of any Electricity Retailer.

The testing and monitoring relates to two aspects of Counties Power distribution system, as follows:

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5.3.1 Quality of Supply

Counties Power will from time-to-time determine the need to test and/or monitor the quality of supply at various points on its ED distribution system. The requirement for specific testing and/or monitoring may be initiated by the receipt of complaints regarding the quality of supply. In certain situations, Counties Power may require the testing and/or monitoring to take place at the point of connection of a user with Counties Power distribution system.

Where testing and/or monitoring is required at the connection point, Counties Power will advise the user involved and will make available to the user the results of such tests.

Where the results of such tests show that the user is operating outside the technical parameters specified in any part of the Distribution Code, or of any other statutory Regulation or Electrical Code of Practice, or of any provisions of the relevant Connection Agreements, the user will be informed accordingly.

Where the user requests, a re-test will be carried out and witnessed by a user representative.

A user shown to be operating outside the specific limits will immediately, or within such time as may be agreed with Counties Power, remedy the situation or disconnect from it electrical system the apparatus causing the problem.

Continued failure to remedy the situation will result in the user being disconnected from Counties Power's distribution system in accordance with the provisions of the relevant Connection Agreement.

5.3.2 Connection Point Parameters

Counties Power from time-to-time will monitor the effect of the user on Counties Power distribution system. The monitoring will normally be related to the amount of power and reactive power transferred across the connection point. Where the user is exporting to or importing from Counties Power's distribution system active power and reactive power in excess of the parameters specified in the Connection Agreement, Counties Power will inform the user of, and where appropriate demonstrate the results of such monitoring.

The user may request technical information on the method of monitoring and if necessary, request another method reasonably acceptable to Counties Power.

Where the user is operating outside the specified parameters, the user will immediately restrict the active power and reactive power transfers to within specific parameters.

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Where the user requires increased active power and reactive power in excess of the physical capacity of the connection point, the user will restrict power transfers to the limits specified in the Connection Agreement until a modified Connection Agreement has been applied for from Counties Power, and physically established.

6.0 Demand Control

6.1 Outline

This section of the Distribution Operation Code is concerned with the provisions for demand control to be made by Counties Power or user with systems connected to Counties Power distribution system. Procedures are established to enable Counties Power, following a request from Transpower or otherwise, to achieve a reduction in demand in order to avoid a breakdown or overload of any part of the total system or the distribution system of Counties Power in a manner that does not unduly discriminate against, or unduly prefer, any one customer or group of customers, Electricity Retailers or their customers. The following methods of reducing demand are dealt with:

- Voltage reduction
- Customer demand management initiated by Counties Power or Electricity Retailers
- Customers disconnection
- Automatic low frequency disconnection
- Emergency manual customer disconnection

The term “demand control” is used to describe any or all of these methods of achieving a demand reduction.

Customers who may be designated from time-to-time as being in a protected category, as may be specified in this Distribution Code or in any Connection Agreement, cannot be guaranteed protection during times of system incident management.

6.2 Procedures

This section of the Distribution Code applies to Counties Power and to users, including embedded generators, direct supply customers and Electricity Retailers with customers connected to Counties Power distribution system.

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Implementation of demand control may affect customers of Electricity Retailers, and where applicable, contractual arrangements between Electricity Retailers and their customers should reflect this.

Demand control may take the forms outlined below:

6.2.1 Operational System Load Reduction

Counties Power will arrange, within Counties Power distribution system, procedures to reduce load in a controlled manner by reducing voltage and/or disconnection customers or portions of customer loads. A system of warnings will be contained within the load reduction procedures to give notice, wherever practicable, of possible implementation of load reduction measures beyond normal operational or economically based demand control measures which may be detailed in a Connection Agreement. Connection Agreements shall make reference to such load reduction procedures.

Load reduction by means of voltage reduction may be carried out by Counties Power only when it can do so without infringing statutory requirements.

Operational load reduction may be by means of any one method or a combination of methods of demand control as may be determined by Counties Power.

Embedded generators, Electricity Retailers and their customers connected to Counties Power system will need to be considered in the preparation of operational load reduction procedures.

6.2.2 Automatic Low-Frequency Disconnection

Counties Power may arrange, at the request of Transpower, or for its own requirements, to have available at selected locations a means of detecting progressively low frequency conditions on the system and will provide for whatever percentage of demand as may be determined to be disconnected automatically. Such measures will be additional to those, which may be taken by Transpower for its purpose in accordance with the relevant Connection Code.

The areas of demand affected by such low frequency disconnection should be such as to allow the demand relief to be uniformly applied throughout Counties Power distribution system, but may take into account any operational requirements and essential or protected load.

The inclusion of customers of Electricity Retailers in a low frequency disconnection scheme network must be reflected in their contractual arrangements.

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6.2.3 Emergency Manual Disconnection of Demand

If requested by Transpower, or for its own purposes, Counties Power will arrange to have available an emergency manual disconnection procedure based on Transpower points of supply.

The procedure will be designed to be called into operation irrespective of system frequency and to be implemented in pre-determined time-scales as may be specified in the Connection Agreement to disconnect demand progressively.

Contractual arrangements between Electricity Retailers and their customers should reflect the possibility of emergency disconnection of load.

6.3 Coordination of Actions

Where demand control is exercised by Counties Power in order to safeguard Counties Power distribution system, Counties Power will liaise with and inform users accordingly, so far as is practicable and as may be specified in any Connection Agreement.

Where demand control is exercised by Counties Power on instruction or request from Transpower in order to safeguard the total system, Counties Power as required to respond to these requests promptly, but will liaise with and inform other users so far as is practicable and as may be specified in any Connection Agreement.

7.0 Operational Liaison

7.1 Outline

This section of the Distribution Operation Code sets out requirements for the exchange of information in relation to operations and/or events on Counties Power distributions system, or the system of any user connected to Counties Power distribution system, which have had, or may have had, or will have, or may have, an operational effect on Counties Power's distribution system or the system of any other user. This is to enable the implications of an operation and/or event to be considered, the possible risks arising from it to be assessed, and appropriate action taken by the relevant party or parties in order to retain the integrity of the total system. It is not sought to deal with any actions arising from the exchange of information, but merely with that exchange.

The requirement to notify and liaise described in this section relates generally to communicating what is to happen and what has happened, not the reasons why, although there is provision for supplying more detailed information in

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writing, and where agreed between Counties Power and the users involved, joint investigation of those significant incidents previously reported verbally.

Where an event has occurred on Counties Power's distribution system which itself has been caused or exacerbated by an operation or event on a user system, there is also provision for Counties Power, in reporting the event on Counties Power's distribution system to a user, to pass on what it has been told by the user in relation to the operation on that user's system.

Requirements are also set out for the reporting and writing up of those events called 'Significant Incidents' and those specified events to be reported under current statutory Regulations and Electrical Codes of Practice. Provision is also made for the joint investigation of significant incidents by the users involved.

Finally, this section of the Distribution Code sets out the responsibilities and procedures for liaison with and notification of relevant owners regarding the numbering and nomenclature of apparatus at ownership boundaries to ensure, so far as is reasonably practicable, the safe and effective operation of the systems involved and to reduce the risk of error. The numbering and nomenclature of apparatus shall be included in the operation diagram prepared for each site having an ownership boundary.

7.2 Procedures

This section of the Distribution Operation Code applies to Counties Power and to users, which means Counties Power, direct supply customers, other EDs connected to Counties Power distribution system, embedded generators connected at high voltage, Electricity Retailers alone or on behalf of their customers and, where specified by Counties Power, individual large customers of EDs connected at high voltage to Counties Power system.

The procedures for operational liaison with Transpower are set out in the relevant Transpower Connection Codes.

7.2.1 Nomination of Officers

Counties Power and each user to whom this section of the Distribution Code applies will nominate officers and agree communication channels to ensure the effectiveness of the exchange of information specified herein.

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7.2.2 Operations and Events

Requirement to Notify

In the case of an operation or event on the system of a user, which will have, or may have, an operational effect on Counties Power distribution system, the user will notify Counties Power in accordance with this Code.

In this case of an operation or event on Counties Power distribution system, or on receipt of notification of an operation on the Transpower transmission system which may, in the opinion of Counties Power, have an operational effect on the system of a user, Counties Power will notify the user only that an incident has occurred or will occur.

An operation or event may be caused by another operation or event, or an operation or event on another's system, and in that situation the information to be notified is different from that where the operation arose or will arise independently.

The following are examples of situations where, in as much as they will have, have, or may have had, an effect on the operation of Counties Power distribution system, or another system, notification will be required in accordance with this section of the Distribution Code:

- The implementation of a scheduled outage of plant and/or apparatus which has been arranged pursuant to this Code.
- The operation of any item of switchgear, including any temporary over-stressing, system parallels, or synchronising generating units.
- Voltage control.
- The actuation of the alarm or indication of any abnormal operating condition.
- Adverse weather conditions being experienced or expected.
- Breakdown of, faults on, or temporary changes in capabilities of plant and/or apparatus, including protection.
- Increased risk of inadvertent protection operation.

Note that the above are to be regarded as examples only and in no way limit the general requirement to notify.

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Form of Notification

A notification under this section of the Distribution Code will be of sufficient detail to describe the operation or event, although it need not state the cause or need, to enable the recipient of the notification reasonably to consider and assess the implications and risks arising, and will include the name of the individual reporting the operation or event.

The recipient may ask questions to clarify the notification. A notification by Counties Power of an operation or event which has been or will be or may be caused by another operation or event on Counties Power's or user's system, will describe the operation or event and will contain the information which Counties Power has been given in relation to the first operation or event by the user. The notification, other than in relation to the information which Counties Power is merely passing on from a user, will be of sufficient detail to enable the recipient of the notification reasonably to consider and assess the implications and consequences arising from the operation or event on Counties Power distribution system, and will include the name of the individual reporting the operation on behalf of Counties Power. The recipient may ask questions to clarify the notification.

Where a user is reporting to Counties Power an operation or event itself has been or will be caused by an incident or a scheduled or planned action affecting, but not on, its system, the notification will contain all relevant information which the user has been given in relation to that incident, or action, and Counties Power may pass on such information as it may see fit.

A notification by Counties Power of an operation or event which has been or will be caused by an operation or event on the Transpower transmission system may describe the operation or event on Counties Power's distribution system and will contain the information which Counties Power has been given in relation to the operation or event on the Transpower transmission system by Transpower. The notification, other than in relation to the information which Counties Power is merely passing on from Transpower, will be of sufficient detail to enable the recipient of the notification to consider and assess the implications and consequences arising from the operation or event on Counties Power's distribution system and will include the name of the individual reporting the operation or event on behalf of Counties Power. The recipient may ask questions to clarify the notification.

A user may pass on the information contained in a notification to it from Counties Power to a generator with a generating unit connected to the system, or to another ED connected to the system, if it is required by any contractual agreement to do so, in connection with the equivalent of an operation or event

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on its system if the operation on Counties Power’s distribution system caused or exacerbated it.

Other than as provided in this Code, the user may not pass on any information contained in a notification to it from Counties Power, or in a notification to another user from Counties Power, to any other person connected to its system, but may only say that there has been or will be an incident on the total system, and, if power supplies have been or will be affected, an estimated time of return to service. Each user shall ensure that any other users not bound by this Distribution Code and receiving information which was contained in the notification to a user from Counties Power, does not pass on any information, other than as provided above.

Where an operation or event relating to a generating unit has been reported to Counties Power by a generator, and in order for the generator to assess the implication of the operation or event on its system more accurately, it may ask Counties Power for details of the fault levels on in-feeds from the distribution system to that generating unit at the time of the operation or event, and Counties Power will, as soon as reasonably practicable, give the generator that information, provided that Counties Power has that information.

Timing of Notification

Notification of an operation or event shall be given as soon as possible after the occurrence of the operation or event or the time that an event is known of or anticipated by the giver of the notification. A notification of a planned operation will be given as far in advance as possible, and in any case shall be given in sufficient time as will reasonably allow the recipient to consider and assess the implications and risks arising.

7.2.3 Significant Incidents

Reporting Procedure

Where an event on Counties Power distribution system, or the system of a user, has had or may have had a significant effect on the systems of any of the others, the event shall be reported in writing to the owner of the systems affected, in accordance with the provisions of this Code. Such an event will be termed a “Significant Incident”.

Where another ED has a system connected to the Counties Power system and they notify a user of an event which the user considers has had, or may have had, a significant effect on that user’s system, that user will require Counties Power to report that event in writing and will notify Counties Power accordingly. Such an event will also be termed a “Significant Incident”.

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Note that for the purposes of this section of the Distribution Code, the term “event” is deemed to include those emergency operations which Counties Power or a user may initiate in response to particular abnormal circumstances which may arise on Counties Power distribution system.

Without limiting the general description set out in this Code, a Significant Incident may include events, which result in or may result in the following:

- Operation of apparatus either manually or automatically
- Voltage outside statutory limits
- System frequency outside statutory limits
- System stability failure

In the case of an event, which has been reported verbally to Counties Power and subsequently has been determined by Counties Power to be a Significant Incident, a written report will be given to Counties Power by the user in accordance with this Code. Counties Power will not pass this report on to other affected users but may use the information contained therein in preparing a report to a user in relation to a Significant Incident on Counties Power’s distribution system which has been caused by or exacerbated by the Significant Incident on the user’s system.

In the case of an event, which has been reported verbally to the user and subsequently has been determined by the user to be a Significant Incident, a written report will be given to the user by Counties Power in accordance with this Code. The user will not pass this report to other affected users, but may use the information contained therein in preparing a report for another Authorised Electricity Operator connected to the system in relation to a Significant Incident which has been caused by or exacerbated by the Significant Incident on Counties Power distribution system.

Reports on Significant Incidents will contain written confirmation of the verbal notification previously given, together with more details relating to the Significant Incident, although it need not state the cause of the event, save to the extent required to ensure that sufficient detail is given to enable the recipient of the notification to consider and assess the implications and risks arising, along with such further information which has become known relating to this Significant Incident since the initial verbal notification.

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The report should, as a minimum, contain the following information:

Applicable to Counties Power, embedded generators and Electricity Retailers:

- Date and time of Significant Incident.
- Location.
- Apparatus involved.
- Brief description of Significant Incident.
- Details of any demand control undertaken.

Applicable to ED:

- Effect on suppliers, including where appropriate:
 - Duration of incident.
 - Estimated date and time of return to normal service.
 - Customer minutes not supplied.

Applicable to embedded generator:

- Effect on generation, including where appropriate:
 - Generation interrupted.
 - Frequency response achieved.
 - MVAR performance achieved.
 - Estimated date and time of return to normal service.

Note that the above list is not intended to be exhaustive.

The recipient may raise questions to clarify the notification, and the giver of the notification will, insofar as it is able, answer any questions raised.

The report shall be given as soon as reasonably practicable after the verbal notification, and in any event, a preliminary report shall normally be given within twenty-four hours of such time.

Note that nothing in this Code shall be construed as relieving users from their duty to report events specified in any statutory Regulations and Electrical Codes of Practice.

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Joint Investigation

Where a Significant Incident has been declared and a report submitted under this Code, either party or parties may request in writing that a Joint Investigation be carried out. A Joint Investigation Panel shall then be assembled, the composition of which will be appropriate to the incident to be investigated and agreed by all parties involved.

Where there has been a series of Significant Incidents, i.e. where a Significant Incident has caused or exacerbated another Significant Incident, the parties involved may agree that the Joint Investigation should cover some or all of those Significant Incidents.

A joint investigation will take place only where agreed by all parties affected by it. The form and rules of the procedure for, and all matters including, if thought appropriate, provisions for costs and for a party to withdraw from the joint investigation once it has begun, relating to the joint investigation, will be agreed at the time of the joint investigation, and in the absence of such agreement, the joint investigation will not take place.

Any joint investigation under this Code is separate from any enquiry which may be carried out under any disputes resolution procedure or to comply with any statutory requirements.

7.2.4 Numbering and Nomenclature

New Apparatus

When Counties Power or user intends installing apparatus on a site having an ownership boundary, the proposed numbering and/or nomenclature to be adopted for the apparatus must be notified to the other owners. The notification will be made in writing to the relevant owners and will consist of an operation diagram incorporating the proposed new apparatus to be installed and its proposed numbering and/or nomenclature.

The notification will be made to the relevant owners at least one month prior to the proposed installation of the apparatus. The relevant owners will respond in writing within one week of the receipt of the notification, confirming both receipt and whether the proposed numbering and/or nomenclature is acceptable, or, if not, what would be acceptable.

In the event that agreement cannot be reached between ED and the other owners, Counties Power, acting reasonably, shall have the right to determine the numbering and nomenclature to be applied at that site.

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Existing Apparatus

Counties Power and/or every user shall supply Counties Power and/or every other user, on request, with details of the numbering and nomenclature of apparatus on sites having an ownership boundary. Counties Power and every user shall be responsible for the provision and erection of clear unambiguous labelling showing the numbering and nomenclature of its apparatus on sites having an ownership boundary.

Changes to Existing Apparatus

Where Counties Power or user needs or wishes to change the existing numbering or nomenclature of any of its apparatus on any site having an ownership boundary, the provisions of the above Section – New Apparatus – shall apply, with any amendments necessary to reflect that only a change is being made.

Where a user changes the numbering and/or nomenclature of its apparatus, the user will be responsible for provision and erection of clear and unambiguous labelling.

Where an ED changes the number and/or nomenclature of its apparatus, Counties Power will be responsible for the provision and erection of clear and unambiguous labelling.

7.2.5 System Control

For the purposes of this section of this Distribution Code, where a part of an ED distribution system is by agreement under the System Control of Transpower, the requirements and provisions of the relevant Transpower Connection Codes shall apply to that situation as if Counties Power's distribution system was the Transpower transmission system.

For the purpose of this section of this Distribution Code, where a part of a system of a user is by agreement under the system Control of Counties Power, the requirements and provisions of this Distribution Code shall apply to that situation as if that system was Counties Power distribution system.

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9.0 Contingency Planning

9.1 Planned Interruptions

From time to time, Counties Power may need to interrupt or reduce the delivery to any connection either totally or partially for any period as necessary; usually to carry out repairs, maintenance or alteration to the network.

In the event of an interruption to or reduction of delivery, Counties Power will:

- (a) Where practical seek agreement with the connected user on the timing of the interruption to or reduction of delivery, with a view to minimising the disturbance to the connected user;
- (b) Use all reasonable endeavors to notify the connected user in advance of its intentions to interrupt or reduce the delivery. Notice may be by a combination of advertising in local newspapers, radio announcements, letterbox drop, phone, fax, or email.
- (c) Use all reasonable endeavors to minimise the period of interruption or reduction to delivery.

9.2 Immediate danger

Notwithstanding the above, if Counties Power believes there is immediate danger to any person, electrical lines, cables, machinery, equipment or other plant or property, we may, without notice to the connected user, immediately interrupt or reduce delivery either totally or partially for any period we deem is necessary to remove the danger.

9.3 Unplanned interruptions

From time to time, events outside our control cause a loss of electricity supply.

Counties Power will use all reasonable endeavors to restore the supply to connected users. We observe the following restoration priorities which may be altered at our discretion:

- Removal of any life threatening situations.
- Restoration of supply to essential services, specifically:-
 - o Hospitals
 - o Emergency services (ambulance, fire, police)
 - o Sewerage
 - o Water supplies.

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9.4 Emergency load shedding

For the safe operation of our network, at times it is essential to carry out load shedding during an abrupt reduction in frequency. This is normally carried out automatically in blocks and it is not possible to isolate individual connected users from any load shedding block (however consideration is given to essential services in the network configuration.). Where connected users have critical loads, they should make provision for their own stand-by generation.

9.5 Civil Emergencies

Counties Power has an obligation to carry out certain Civil Emergency actions related to its distribution system. Under such emergencies the actions of Counties Power and all parties connected either directly or indirectly to Counties Power's distribution system will be governed by the procedures laid down in the relevant portions of the Civil Defence Emergency Management (CDEM) Act 2002 (and amendments). Counties Power must prepare plans to deal with civil emergencies, in accordance with the requirements of the Civil Defence Emergency Management (CDEM) Act 2002 (and amendments), and will liaise with the local Civil Defence Controller in the preparation of such plans.