# SHORT-TERM OPERATING RESERVE DESPATCH PROCEDURE "STOR DESPATCH PROCEDURE"

# for Non-Balancing Mechanism Participants

Version 1.3 reviewed December 2008



# CONTENTS

#### PART 1 - STOR DESPATCH

INTRODUCTION1 System Description Using STOR Despatch Definitions	
COMMERCIAL RIGHTS AND OBLIGATIONS	
SITE/TECHNICAL REQUIREMENTS	
CHANGE CONTROL9 Process	
OPTIONAL WINDOWS10	
PART 2 - SYSTEMS FAILURE	
NOTIFICATION OF SYSTEMS FAILURE AND FAX FORMS	
PART 3 - DELAY IN INSTALLATION/COMMISSIONING OF STOR Despatch	
AGREEMENT OF ALTERNATIVE COMMUNICATIONS	\$
APPENDIX A: STOR Despatch - COMPATIBLE METERING SIGNALS14	
APPENDIX B: Summary of Metering Accuracy Requirements16 APPENDIX C: Fax Forms17	
FORM A - STOR Despatch Fault Report       18         FORM B - Week ahead Availability Declaration       19         FORM C - Availability Redeclaration       20         FORM D – Notification of unavailability       21         FORM E - Request for Reserve Test       22         FORM F - Confirmation of Instructions       23	9 0 1 2
AMENDMENT RECORD24	4

## PART 1 - STANDING RESERVE DESPATCH

## INTRODUCTION

#### System Description

- 1 The Short Term Operating Reserve Despatch (STOR Despatch) equipment consists of a Personal Computer ("STOR Despatch PC") connected through an ISDN connection to a central server owned and operated by National Grid Electricity Transmission plc ("National Grid").
- 2 The STOR Despatch PC is connected to the Reserve Provider's metering equipment through dedicated interface modules to allow the amount of Reserve provided from the Contracted Site(s) to be read each minute and communicated back to National Grid.
- 3 If the Reserve Provider's provision of Reserve from the Contracted Site(s) is controlled by means of auto-start then the STOR Despatch PC will be connected to the Reserve Provider's control system through dedicated interface modules. This allows National Grid to start and stop the Reserve Provider's provision of Reserve from the Contracted Site(s) remotely if declared available.
- 4 If auto-start is not provided, the Reserve Provider will receive instructions to start and stop Contracted Site(s) through the STOR Despatch PC. The Reserve Provider is then required to accept or reject the instructions within five minutes. Please note that this requires the Reserve Provider to man the Contracted Site (s) when Reserve is declared available.
- 5 The STOR Despatch PC is also used by the Reserve Provider and/or Reserve Provider's Agent to make declarations or redeclarations of the Contracted Site's availability to provide Reserve.

#### Using STOR Despatch

- 6. Unless otherwise agreed by National Grid in accordance with paragraph 3.12 of Section 3 of the Standard Contract Terms, STOR Despatch shall be used for:-
  - 6.1 declarations or redeclarations given by the Reserve Provider and/or the Reserve Provider's Agent to National Grid;
  - 6.2 all instructions given by National Grid to the Reserve Provider; and
  - 6.3 all acceptances or rejections of instructions given by the Reserve Provider,

pursuant to Section 3 of the Standard Contract Terms ("STOR Despatch Communications"). If during the term of the STOR Contract STOR Despatch becomes unavailable, then all STOR Despatch Communications required by Section 3 of the Standard Contract Terms must be given in accordance with the Default Provisions as specified in this STOR Despatch Procedure. All other communications between National Grid and the Reserve Provider or the Reserve Provider's Agent shall be made in accordance with the relevant provisions of Section 3 and paragraph 4.8 of Section 4 of the Standard Contract Terms.

- 7. Subject to Paragraph 10 (below), all STOR Despatch Communications shall be made in electronic form via the STOR Despatch.
- 8. STOR Despatch shall be used when the Reserve Provider or Reserve Provider's Agent is notifying National Grid of the availability of Reserve during Availability Windows, and also when notifying National Grid that the Reserve Provider is able to provide Reserve during Optional Windows (or Deemed Optional Windows).
- 9. The detailed requirements in respect of the transfer of STOR Despatch Communications, including the inputting of Declarations, Redeclarations and Instructions, shall be given in accordance with the STOR Despatch System User Manual (Site/Agency version).
- 10. National Grid shall notify the Reserve Provider by facsimile (and not via STOR Despatch) when serving notice on the Reserve Provider in accordance with subparagraph 3.2.3 of the Standard Contract Terms that it does not require Reserve during a Flexible Window in respect of which the Declaration, at Gate Closure, indicates that Reserve is available during that Window.

#### Definitions

11. In this STOR Despatch Procedure the following definitions shall apply:-

"Intellectual Property"	Means any patent, copyright, design right, registered design, trademark or other intellectual property right from time to time owned by or licensed to National Grid in connection with the STOR Despatch;
"Reserve Provider"	Means a person who makes available and provides Reserve to National Grid in accordance with the STOR Contract;
"Reserve Provider's Agent"	Means the agent, if any, appointed by the Reserve Provider in connection with the performance of some or all of its obligations under the STOR Contract;
"Reserve Provider's Agent's Equipment"	Means the equipment (including, without limitation, the cables) owned by the Reserve Provider's Agent, through which information flows electronically between certain parts of the equipment and the STOR Despatch Equipment;
"Reserve Provider's Agent's Premises"	Means the premises of the Reserve Provider's Agent;

"Reserve Provider's Equipment"	Means the equipment (including, without limitation, the cables) owned by the Reserve Provider through which information flows electronically between certain parts of the equipment and the STOR Despatch Equipment;
"Site/Technical Requirements"	Means the requirements specified in Paragraphs 20 to 45 (inclusive) of this STOR Despatch Procedure;
"STOR Contract"	Means the STOR Contract (or Contracts) between National Grid and the Reserve Provider;
"STOR Despatch Equipment"	Means the equipment (including, without limitation, ISDN router, the personal computer, input/output nodes and the cables) owned by National Grid;
"STOR Despatch PC"	has the meaning given in Paragraph 1;

and any other terms contained in this STOR Despatch Procedure which are defined in the Standard Contract Terms, the Framework Agreement or the STOR Contract shall have the meaning ascribed to them therein.

### COMMERCIAL RIGHTS AND OBLIGATIONS

#### **National Grid's Entitlements**

- 12. National Grid, its employees, agents, suppliers, contractors and sub-contractors may :-
  - 12.1 install STOR Despatch Equipment on the Contracted Site(s) and the Reserve Provider's Agent's Premises;
  - 12.2 maintain, inspect and test STOR Despatch Equipment at the Contracted Site(s) and the Reserve Provider's Agent's Premises and alter and review the STOR Despatch Equipment after having given reasonable prior notice to the Reserve Provider and the Reserve Provider's Agent;
  - 12.3 repair, replace and renew STOR Despatch Equipment with equivalent items of no greater size having given reasonable prior notice to the Reserve Provider and/or the Reserve Provider's Agent;
  - 12.4 use STOR Despatch Equipment for the purposes permitted by this STOR Despatch Procedure during the term of the STOR Contract;
  - 12.5 remove STOR Despatch Equipment upon the termination of the STOR Contract or as soon as reasonably practicable thereafter having given

reasonable prior notice to the Reserve Provider and/or the Reserve Provider's Agent.

13 The Reserve Provider shall, and shall procure that the Reserve Provider's Agent shall, grant to National Grid and its employees, agents, suppliers, contractors and sub-contractors free and unrestricted rights of access over the Contracted Site(s) and the Reserve Provider's Agent's Premises or any part or parts thereof to the STOR Despatch Equipment and to such other parts of the Contracted Site(s) and the Reserve Provider's Agent's Premises as may be necessary to exercise the entitlements granted by Paragraph 12 (subject to National Grid giving reasonable notice that National Grid wishes to exercise such rights).

#### **National Grid's Obligations**

- 14. National Grid shall:-
  - 14.1 use its reasonable endeavours to comply with the maintenance proposal (as may be amended from time to time) devised by National Grid relating to the maintenance of STOR Despatch Equipment and be solely responsible for the costs of such maintenance save to the extent that such maintenance is required as a result of the Reserve Provider's failure to observe its obligations set out in Paragraph 15;
  - 14.2 inform the Reserve Provider or the Reserve Provider's Agent as soon as reasonably practicable of any steps it should take in order to protect STOR Despatch Equipment as a result of adverse environmental conditions notified to it by the Reserve Provider or which the Reserve Provider procures is notified to it in accordance with Paragraph 15.4;
  - 14.3 whilst on the Contracted Site(s) or the Reserve Provider's Agent's Premises in pursuance of its rights and obligations pursuant to this STOR Despatch Procedure and the STOR Contract use all reasonable endeavours to ensure that its employees, agents, suppliers, contractors and sub-contractors comply with the site and general corporate rules and procedures in relation to health, safety and working standards of the Reserve Provider and/or the Reserve Provider's Agent (as the case may be) (in so far as the same have been made known by the Reserve Provider or the Reserve Provider's Agent to National Grid in writing in advance) and use all reasonable endeavours to ensure that all such persons are provided with all protection and safety clothing, tools and equipment reasonably necessary for their protection;
  - 14.4 not exercise the rights set out in Paragraph 12 in a manner which may be calculated to be a nuisance, annoyance or disturbance to the Reserve Provider and/or the Reserve Provider's Agent.

#### The Reserve Provider's Obligations

15. The Reserve Provider shall:-

- 15.1 take proper care of and procure that the Reserve Provider's Agent takes proper care of STOR Despatch Equipment and ensure that STOR Despatch Equipment is properly protected and either insured to its full replacement value and ensure that National Grid's interest in STOR Despatch Equipment is noted on the relevant insurance policy or, if damaged or destroyed as a result of the Reserve Provider's failure to do so, pay for the cost of its repair and/or replacement;
- 15.2 maintain or procure the maintenance at its expense of the Reserve Provider's Equipment and the Reserve Provider's Agent's Equipment and ensure the continuous connection of the Reserve Provider's Equipment and the Reserve Provider's Agent's Equipment to STOR Despatch Equipment in order that National Grid may exercise the rights granted to it under Paragraph 12;
- 15.3 notify National Grid or procure that National Grid is notified by the Reserve Provider's Agent in accordance with the terms of this STOR Despatch Procedure and the Standard Contract Terms immediately upon becoming aware or the Reserve Provider's Agent becoming aware of any failure or likely failure of STOR Despatch to monitor the provision of Reserve in accordance with the terms of the Standard Contract Terms and the STOR Contract;
- 15.4 notify National Grid or procure that National Grid is notified by the Reserve Provider's Agent as soon as reasonably practicable of any adverse environmental conditions which may affect STOR Despatch Equipment and comply and procure compliance by the Reserve Provider's Agent with National Grid's instructions relating to the care of STOR Despatch Equipment in such conditions;
- 15.5 not change the location of any part or parts of STOR Despatch Equipment on the Contracted Site(s) or on the Reserve Provider's Agent's Premises without the prior written consent of National Grid;
- 15.6 comply with the Site/Technical Requirements specified in Paragraphs 20 to 45 (inclusive) of this STOR Despatch Procedure.
- 15.7 permit access to National Grid and/or its contractors to examine, and at National Grid's discretion, to ascertain the accuracy and adequacy of the metering equipment providing the metering signals and of the resultant data sent to the STOR Despatch Equipment.
- 16. The Reserve Provider shall indemnify National Grid for any costs incurred by National Grid as a result of any failure by the Reserve Provider to comply with the provisions of Paragraph 15.
- 17. The Reserve Provider shall reimburse to National Grid the reasonable costs incurred by National Grid of installing, maintaining and removing STOR Despatch Equipment from the Contracted Site(s) and from the Reserve Provider's Agent's Premises if the STOR Contract is terminated due to an act or default of the

Reserve Provider as specified in the Standard Contract Terms and/or this STOR Despatch Procedure.

#### **Intellectual Property**

- 18. The Intellectual Property shall at all times both during the term of the STOR Contract and after its termination belong to National Grid and the Reserve Provider shall not, and shall procure that the Reserve Provider's Agent does not, make any use of the Intellectual Property other than to the extent reasonably necessary in performing its obligations or the Reserve Provider's Agent performing the Reserve Provider's obligations pursuant to the STOR Contract and this STOR Despatch Procedure provided that nothing in this Paragraph 18 shall operate so as to exclude any non-excludable rights of the Reserve Provider or the Reserve Provider's Agent. The Reserve Provider shall indemnify National Grid against any costs or losses arising from any breach of this Paragraph 18.
- 19. If National Grid agrees, the Reserve Provider may be permitted to take or permit that the Reserve Provider's Agent takes such copies of the data from STOR Despatch as may be reasonably necessary in performing its obligations or the Reserve Provider's Agent performing the Reserve Provider's obligations pursuant to the STOR Contract. Upon termination of the STOR Contract, the data and any copies of the data in any medium taken by the Reserve Provider shall at National Grid's option be returned to National Grid or disposed of in such manner as National Grid in its absolute discretion may deem appropriate and in the case of copies of data taken by the Reserve Provider's Agent the Reserve Provider shall procure that the Reserve Provider's Agent returns or disposes of such copies as National Grid in its absolute discretion deems appropriate.

## SITE/TECHNICAL REQUIREMENTS

#### Environment

20. The Reserve Provider shall provide, and maintain at the Contracted Site(s) or procure that the Reserve Provider's Agent provides and maintains at the Reserve Provider's Premises an environment suitable for STOR Despatch Equipment. The environment shall be a clean office environment with:

Temperature	10°C min to 35°C max
Relative Humidity	20% to 80% non condensing
Vibration	less than 0.25 G at 3 to 200Hz
Shock (half-sine pulse)	less than 105 G at 3 to 200Hz

#### **Power Supply**

- 21. The Reserve Provider shall provide and procure the provision of a connection to a 240 volt electricity supply (Uninterruptable Power Supply (UPS)) for STOR Despatch Equipment.
- 22. In the event of a failure of the site power supply the UPS shall maintain a 240 volt supply for a minimum of 8 hours in order that National Grid may exercise the rights specified in Paragraph 12.
- 23. The Reserve Provider shall procure that the UPS is maintained and tested at least once every twelve months.

#### Telecommunications

- 24. National Grid shall pay for the installation and rental of an ISDN telecommunication line and router (CISCO 801 or similar) at the Reserve Provider's Contracted Site(s) control point.
- 25. If the Reserve Provider's Contracted Site(s) control point is located within a telecomms 'hot zone' the Reserve Provider shall provide and procure at the Contracted Site(s) control point, at the Reserve Provider's cost, the installation of the necessary equipment to permit an ISDN line to be installed.
- 26. The Reserve Provider shall identify the location of the ISDN termination point. The ISDN termination point shall not be more than 10 metres from the location of the ISDN router.
- 27. If the router is to be located more than 10 metres from the STOR Despatch PC the Reserve Provider shall provide and procure the necessary cabling to permit the ISDN router to be connected to the STOR Despatch PC i.e. structured cabling.

#### Metering of Reserve Provider's Generation or Demand

- 28. The Reserve Provider shall provide and procure at the Reserve Provider's cost and to the satisfaction of National Grid metering signals measuring the Generation or Demand of the equipment at the Contracted Site(s) which is contracted to provide Short Term Operating Reserve.
- 29. This metering will be used by National Grid for real-time monitoring and financial settlement of payments to the Reserve Provider.
- 30. The metering signals shall be supplied in a form compatible with STOR Despatch Equipment. Appendix A provides further information on compatible metering signals.
- 31. If the Reserve Provider is unable to supply metering signals compatible with STOR Despatch Equipment then National Grid reserves the right to recover from the Reserve Provider the cost of modifying STOR Despatch Equipment to make it compatible.
- 32. The Reserve Provider shall terminate the metering signals in the same room as, and within 10 metres of, STOR Despatch Equipment.
- 33. The Reserve Provider's meters shall be accurate to that required by the BSC Codes of Practice (see Appendix B for Summary of metering requirements).
- 34. The Reserve Provider shall ensure its meters are kept in calibration and shall supply an up to date certificate of calibration to National Grid.

#### Control of the Reserve Providers equipment at Contracted Site(s)

- 35. Provision of Reserve from the Reserve Provider's Contracted Site(s) may be controlled either manually or automatically by National Grid.
- 36. With manual control, the Reserve Provider is instructed via the STOR Despatch PC to commence or cease providing Reserve from the Contracted Site(s).
- 37. The Reserve Provider shall respond to an instruction under Paragraph 36 within 5 minutes. Please note that this requires the Reserve Provider to man the Contracted Site (s) when Reserve is declared available.
- 38. With automatic control, National Grid shall remotely start or stop the provision of Reserve from Contracted Site(s), if it has been declared available.
- 39. National Grid's preference is for automatic control of the Reserve Provider's provision of Reserve from its Contracted Site(s).
- 40. The control signals shall be supplied in a form compatible with the STOR Despatch Equipment. Appendix A provides further information on compatible control signals.

- 41. If the Reserve Provider is unable to supply control signals compatible with the STOR Despatch Equipment then National Grid reserves the right to recover from the Reserve Provider the cost of modifying STOR Despatch Equipment to make it compatible.
- 42. The Reserve Provider shall terminate the control signals in the same room as, and within 10 metres of, the STOR Despatch Equipment.

#### Alarms

- 43. STOR Despatch uses the STOR Despatch PC speaker to generate an audible alarm when provision of Reserve is initiated or ceased.
- 44. If required, National Grid can supply an interface to the Reserve Provider's alarm system (see Appendix A for details of compatible interfaces). Please note that the alarm and cabling shall be provided by the Reserve Provider at its own cost.
- 45. The Reserve Provider shall, if required, terminate the alarm signals in the same room as, and within 10 metres of, the STOR Despatch Equipment.

## CHANGE CONTROL

#### Process

- 46. This STOR Despatch Procedure will be reviewed by National Grid from time to time.
- 47. If National Grid believes that this STOR Despatch Procedure should be modified during the term of the STOR Contract, National Grid will contact the Reserve Provider before such change shall become effective. National Grid will give the Reserve Provider a reasonable period to consider such proposed changes.
- 48. Such changes are likely to affect a number of Reserve Providers and, as National Grid wishes to maintain a consistent approach in its relations with all Reserve Providers, National Grid may wish to initiate discussions on a multi-lateral basis with relevant Reserve Providers in response to any concerns raised.
- 49. It is intended that all changes to this STOR Despatch Procedure will be discussed and agreed with all Reserve Providers, but National Grid reserves the right to implement changes in respect of one or more individual Reserve Providers should this prove impractical. It is acknowledged by the Reserve Provider that such instances (if any) may result in the disclosure of the identity of the Reserve Provider, the Reserve Provider's Agent and/or the Contracted Site(s).
- 50. National Grid undertakes not to make unreasonable changes, but reserves the right to make changes to this STOR Despatch Procedure without the agreement of the Reserve Provider.
- 51. For the avoidance of doubt, no changes may be made to this STOR Despatch Procedure other than by National Grid.

#### **OPTIONAL WINDOWS**

- 52. When notifying National Grid of the availability of Reserve during Availability Windows in respect of each Day during the following Week in accordance with sub-paragraph 3.2.1 of the Standard Contract Terms, the Reserve Provider may indicate to National Grid that it will be able to provide Reserve to National Grid during all Optional Windows in at least one Day comprised in that Week, by showing the Optional MW figure in the relevant column of the weekly declarations screen of STOR Despatch.
- 53. The Reserve Provider may, if it so wishes, revise such Declaration for a particular Day in accordance with sub-paragraph 3.2.4 of the Standard Contract Terms, by indicating by 24:00 hours on the preceding Day that it can or cannot provide Reserve to National Grid during all Optional Windows on the following Day, showing either the Optional MW figure or zero, as the case may be, in the relevant column of the declarations screen of STOR Despatch.
- 54. If, on any Day in which the Reserve Provider has indicated to National Grid as referred to in Paragraph 52 and/or 53, that it will be able to provide Reserve during all Optional Windows on that Day, the Reserve Provider becomes unable to provide Reserve in one or more of such Optional Windows, it shall indicate this fact to National Grid in accordance with sub-paragraph 3.2.5 of the Standard Contract Terms by showing the level of MW available for Reserve during all of the Optional Windows for that Day as zero in the relevant column of the declarations screen of STOR Despatch and Reserve availability shall be withdrawn by the Reserve Provider for all Optional Windows in that Day.

#### PART 2 - SYSTEMS FAILURE

#### **NOTIFICATION OF SYSTEMS FAILURE AND FAX FORMS**

#### Unavailability of STOR DESPATCH

- 55. As soon as National Grid becomes aware that STOR Despatch is unavailable, National Grid will immediately commence operation of the "Default Provisions" as set out in this STOR Despatch Procedure and the Reserve Provider will conform with the requirements of the Default Provisions (Paragraphs 58 and 59 of this STOR Despatch Procedure) accordingly.
- 56. Where the Reserve Provider becomes aware that STOR Despatch is unavailable, it shall report the fault by telephone on **0800 91 77111** (select option 4 and mention STOR Despatch) and by submitting a facsimile on Form A set out in Appendix C to this STOR Despatch Procedure. In such case National Grid will decide, in its sole discretion, whether the Parties shall commence operation of the Default Provisions.

In the event that STOR Despatch becomes unavailable after National Grid has issued an Instruction but before the Reserve Provider has indicated whether it is able to provide Reserve in accordance with the Instruction, the Reserve Provider shall be obliged to comply with Paragraph 60 below, in addition to its obligation to make notifications pursuant to this Paragraph 56.

Under no account should the Reserve Provider contact the Control Room upon failure of the STOR Despatch other than in accordance with this STOR Despatch Procedure.

57. Whenever STOR Despatch is determined to be unavailable in accordance with Paragraph 55 or 56 of this STOR Despatch Procedure for whatever reason the Default Provisions shall continue to be operated by the Parties until such time as STOR Despatch is available again.

#### **Default Provisions**

- 58 Where it has been determined in accordance with this STOR Despatch Procedure that STOR Despatch is unavailable or where Paragraph 61 of this STOR Despatch Procedure applies, all STOR Despatch communications required pursuant to Section 3 of the Standard Contract Terms shall be given by means of the following Default Provisions:-
  - 58.1 Weekly Declarations by the Reserve Provider (in accordance with subparagraph 3.2.1 of the Standard Contract Terms) shall be submitted by facsimile on Form B set out in Appendix C to this STOR Despatch Procedure.
  - 58.2 Redeclarations for either:
    - a) the period up to Gate Closure for the first Settlement Period within a Pre-Window Instruction Period in respect of a Contracted Availability Window; or
    - b) the period up to Gate Closure for the first Settlement Period within a Pre-Window Instruction Period in respect of a Deemed optional Window; or
    - c) all Optional Windows in a Day,

in each case submitted by the Reserve Provider in accordance with subparagraphs 3.2.4 and 3.2.5 (as applicable) of the Standard Contract Terms, shall be submitted by facsimile on <u>Form C</u> set out in Appendix C to this STOR Despatch Procedure.

- 58.3 Notification of Reserve being unavailable:
  - a) later than Gate Closure for the first Settlement Period within a Pre-Window Instruction Period in respect of a Contracted Availability Window; and /or

- b) later than Gate Closure for the first Settlement Period within a Pre-Window Instruction Period in respect of a Deemed Optional Window; or
- c) later than 24:00 on the Day preceding an Optional Window,

(in accordance with sub-paragraph 3.2.8 of the Standard Contract Terms) shall be submitted by the Reserve Provider by facsimile on <u>Form D</u> set out in Appendix C to this STOR Despatch Procedure.

- 58.4 Where the Reserve Provider wishes a test of the Plant and Apparatus to be carried out jointly with National Grid (in accordance with sub-paragraph 3.11.5 of the Standard Contract Terms) the request shall be submitted by facsimile on Form E set out in Appendix C to this STOR Despatch Procedure.
- 58.5 National Grid shall give all instructions pursuant to Section 3 of the Standard Contract Terms by telephone, whereupon the Reserve Provider shall orally accept or reject any such instruction. As soon as possible thereafter, the Reserve Provider shall confirm its acceptance or rejection of such instruction by facsimile on <u>Form F</u> set out in Appendix C to this STOR Despatch Procedure.
- 59. All communications made by facsimile by the Reserve Provider to National Grid pursuant to this STOR Despatch Procedure shall be acknowledged by National Grid by signing and dating the appropriate form and returning it by facsimile to the Reserve Provider.
- 60. In the event that STOR Despatch becomes unavailable after National Grid has issued an Instruction but before the Reserve Provider has indicated whether it is able to provide Reserve in accordance with the Instruction, the Reserve Provider shall within five minutes of receipt of the Instruction telephone National Grid on **01189 358450** (standby 01189 363273) to indicate acceptance or rejection of the Instruction. The Reserve Provider may then confirm its acceptance or rejection of the Instruction by facsimile on Form F set out in Appendix C to this STOR Despatch Procedure.

For the avoidance of doubt, failure by the Reserve Provider to notify National Grid by telephone of acceptance or rejection of an Instruction in the circumstances described in Paragraph 60 constitutes an Event of Default for the purposes of sub-paragraph 3.3.3 of the Standard Contract Terms and the provisions of sub-paragraph 3.5 (Events of Default and Consequences) of the Standard Contract Terms shall apply accordingly.

#### PART 3 - DELAY IN INSTALLATION/COMMISSIONING OF STOR DESPATCH

#### AGREEMENT OF ALTERNATIVE COMMUNICATIONS

- 61. Where STOR Despatch has not been installed and/or commissioned at the commencement of a STOR Contract, National Grid may, in accordance with paragraph 3.12 of Section 3 of the Standard Contract Terms, agree, in its sole discretion, that the Default Provisions set out in Paragraphs 58 and 59 of this STOR Despatch Procedure shall apply. Such Default Provisions shall apply until such time as either National Grid withdraws its agreement by notice in writing or STOR Despatch is installed, commissioned and operational in respect of the relevant Contracted Site, Reserve Provider and (where relevant) Reserve Provider's Agent.
- 62, Where Paragraph 61 of this STOR Despatch Procedure applies, the Reserve Provider shall use its best endeavours to install and commission STOR Despatch within a timescale agreed by National Grid (acting reasonably).

## **APPENDIX A: STOR DESPATCH – Compatible Signals**

#### 1. Introduction

Metering signals with the following characteristics are compatible with STOR Despatch Equipment.

#### 2. Metering Interface

#### 2.1 Analogue Meters

4 – 20 mAmps 0 – 5 volts

4 –20 mAmps is preferred to 0 –5 volts.

#### 2.2 Impulse Meters

Pulse rate in the range 0-10 Hz. A pulse rate of not less than 100 pulses/minute (1.67 Hz) is required at maximum load. Volt free or Open Collector outputs are acceptable.

#### 2.3 DCS or SCADA Interfaces

STOR Despatch Equipment supports a number of serial protocols using RS232 interfaces. Please contact National Grid for details of supported protocols. The interface should supply meter reading at all times and not just during call offs. The interface must supply meter reading with a maximum latency of 1 minute.

#### 2.4 Meter Accuracy

The Reserve Provider's meters shall be accurate to the extent required by the BSC Codes of Practice (see Appendix B for Summary of metering requirements).

#### 2.5 Signal Range

Maximum load should generate a metering signal that makes good use of the signal range. Example: a load of 10 MW should generate signals in the following ranges: -

Metering Signal	Lowest value	Highest value
Analogue 4 – 20 ma	16.8 ma	20ma
Analogue 0 – 5 v	4v	5v
Impulse	8Hz	10Hz

#### 3. Automatic Control Interface

The automatic start/stop interface can be either a closing contact interface or a serial interface.

The closing contact interface is a volt free relay that can be normally open, normally closed or pulsed to initiate a start or stop of the Reserve Provider's Contracted Site(s).

A number of industry standard interfaces can also be supported e.g. MODBUS. Please contact National Grid to discuss supported interfaces.

#### 4. Alarm Interface

If an alarm interface is required it can be either a closing contact interface or a serial interface.

The closing contact interface is a volt free relay that can be normally open, normally closed or pulsed to initiate a start or stop of the Reserve Provider's Contracted Site(s).

A number of industry standard interfaces can also be supported e.g. MODBUS. Please contact National Grid to discuss supported interfaces.

#### APPENDIX B: Summary of Metering Accuracy Requirements from BSC Codes of Practice

The 'BSC Codes of practice for the metering of energy' can be located on the Elexon web site at <u>www.elexon.co.uk/ta/bscrel\_docs/cop.html</u> and the metering accuracy requirements are summarized below.

#### Demand greater than 1MW and less than 10MW

Specified in BSC Code of Practice 3 Issue 5 Version 3.00

Condition	Limit of Errors at stated system power factor	
Current expressed as a percentage of rated Measuring Current	Power Factor	Limits of Error
120% to 10% inclusive	1	± 1.5%
Below 10% to 5%	1	± 2.0%
120% to 10 % inclusive	0.5 lag & 0.8 lead	± 2.5%

#### Demand greater than or equal to 10MW and less than 100MW

Specified in BSC Code of Practice 2 Issue 3 Version 1.05

Condition	Limit of Errors at stated system power factor		
Current expressed as a percentage of rated Measuring Current	Power Factor	Limits of Error	
120% to 10% inclusive	1	± 1.0%	
Below 10% to 5%	1	± 1.5%	
Below 5% to 1%	1	± 2.5%	
120% to 10 % inclusive	0.5 lag & 0.8 lead	± 2.0%	

## **APPENDIX C: Fax Forms**

FORM A			
STOR DESPATCH FAULT REPORT			
Fax to helpdesk on: 0870 602 4805			
From: Name:			
Company:			
Site:			
Also known as:			
Contact numbers: Phone:			
Fax:			
Details of problem (Please give wording of any error messages			

### FORM B STOR FAX FORM FOR NOTIFICATION OF WEEK AHEAD DECLARATION

Contracted Site:	
Contract Number:	
Company Name:	
Contracted MW:	

Tel: Standby Tel: Fax: Standby Fax:

We hereby notify you of the Week Ahead Declaration of the above Contracted Site due to the unavailability of STOR Despatch

## WEEK AHEAD AVAILABILITY DECLARATION

WEEK COMMENCING 05:00 hours on Monday///				
	AVAILABILITY WINDOWS			OPTIONAL
DAY	I	II		WINDOWS
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

Note: Indicate date using the format DD/MMM/YYYY eg 12/JUN/2002. Also indicate the amount of MW's available for Reserve in each box. This must be either the contracted MW, or zero. If any window is not applicable, please record N/A as appropriate.

Fax Sent By (	(Print name):		Date:
	Time:		
	Signature:		
Acknowledge	ed by National Grid: (	Print name):	
	Signature:		Date:
	Time:		
National Grid (	Control		
	0870 602 4805	Standby Fax: 0870 602 48	
Telephone:	0870 2406961	Standby Telephone: 0844	4 8920360

## FORM C

## STOR FAX FORM FOR AVAILABILITY REDECLARATION PURSUANT TO PARAGRAPH 58.2

Contracted Site:	
Contract Number:	
Company Name:	
Contracted MW:	

Tel:	
Standby Tel:	
Fax:	
Standby Fax:	

We hereby notify you of an Availability Re-declaration of the above Contracted Site due to unavailability of STOR Despatch

#### AVAILABILITY RE-DECLARARTION PRIOR TO WINDOW

	RELEVANT AVAILABILITY WINDOWS			OPTIONAL
Date	I	II	=	WINDOWS

Note: Indicate date using the format DD/MMM/YYYY eg 12/JUN/2002. Also indicate the amount of MW's available for Reserve in each box. This must be either the contracted level, or zero. If no change made, then please mark as N/C.

 Fax Sent By (Print name): .....
 Date: .....

 Time: .....
 Signature: .....

 Acknowledged by National Grid (Print name): .....
 Date: .....

 Signature: .....
 Date: .....

 National Grid Control
 Standby Fax: 0870 602 4805

 Fax number:
 0870 602 4805
 Standby Fax: 0870 602 4802

 Telephone:
 0870 2406961
 Standby Telephone: 0844 8920360

## FORM D

## STOR FAX FORM FOR REDECLARATION OF UNAVAILABILITY OF RESERVE PURSUANT TO PARAGRAPH 58.3

Contracted Site:	
Contract Number:	
Company Name:	
Contracted MW:	

Tel:	
Standby Tel:	
Fax:	
Standby Fax:	

We hereby notify you of the unavailability of Reserve at the above Contracted Site

#### UNAVAILABILITY OF RESERVE WITHIN GATE CLOSURE PRIOR TO OR WITHIN WINDOW

_	RELEVANT AVAILABILITY WINDOWS			OPTIONAL
Date	I	II	III	WINDOWS

Note: Indicate date using the format DD/MMM/YYYY e.g. 12/JUN/2002. Also indicate the amount of MW's available for Reserve in each box. This must be either the contracted level, or zero. If no change made, then please mark as N/C.

Reason for unavailability:	

Fax Sent By (	Print name):		Date:	Гіте:
	Signature:			
Acknowledge	ed by National Grid (F	Print name):		
	Signature:		Date:	Time:
National Grid	Control			
	0870 602 4805 0870 2406961		ax: 0870 602 4802 ne: 0844 8920360	

## FORM E

## STOR FAX FORM FOR PROVIDER TO REQUEST A TEST

Contracted Site:	
Contract Number:	
Company Name:	
Contracted MW:	

Tel:	
Standby Tel:	
Fax:	
Standby Fax:	

We hereby request a test to be carried out by way of National Grid issuing a call-off instruction for the following times:

(We recognise that no part or parts of the Reserve Utilisation Payment shall be payable by National Grid for any Reserve provided under such test)

Start Date	Start Time	End Date	End Time	MW Available

Note: Indicate date using the format DD/MMM/YYYY e.g. 12/JUN/2002 and desired test start and finish times in the format HH:MM. Also indicate the amount of MW's available for the test. This should be the contracted level.

Signature: .....

Acknowledged by National Grid (Print name): .....

Signature: ..... Time: .....

National Grid Control

Fax number:	0870 602 4805	Standby Fax: 0870 602 4802
Telephone:	0870 2406961	Standby Telephone: 0844 8920360

## FORM F

## STOR FAX FORM FOR CONFIRMATION OF TELEPHONE INSTRUCTIONS

Contracted Site:	
Contract Number:	
Company Name:	
Contracted MW:	

Tel:	
Standby Tel:	
Fax:	
Standby Fax:	

## **CONFIRMATION OF TELEPHONE INSTRUCTIONS**

This is a written acknowledgement of instruction(s) from National Grid:

Date	Time	Instruction	MW	Accept / Reject

Fax Sent By (Print name): ..... Date: ..... Date: .....

Signature: .....

Acknowledged by National Grid (Print name): .....

Signature: ..... Time: .....

National Grid Control

Fax number:	0870 602 4805	Standby Fax: 0870 602 4802
Telephone:	0870 2406961	Standby Telephone: 0844 8920360

#### AMENDMENT RECORD

- 1. Fax Form Headers Amended to reflect 'STOR' and replace 'Standing Reserve' (March 07)
- 2. Control Room telephone contact numbers updated. (March 07)
- 3. Amendment to cross-reference to Standard Contract Terms. (December 07)