

**Proposed Revisions to the
Procurement Guidelines, Balancing Principles Statement,
Balancing Services Adjustment Data Methodology Statement, and
Applicable Balancing Services Volumes Data Methodology Statement**

**Incorporation of Short Term Operating Reserve (STOR) service
and STOR Weighting Factors**

**A Consultation by National Grid
January 2007**

Overview

As a result of National Grid's Reserve Review, National Grid has taken forward developments to the arrangements for its within-day reserve procurement and seasonal reserve procurement. Proposals relating to within-day reserve procurement were implemented via the BM Start Up service which became effective from 1 November 2006. The developments to seasonal reserve procurement relate to the existing service of Standing Reserve (including supplemental Standing Reserve). Whilst the developments are not fundamental in nature, the service has been refreshed and we believe the new arrangements represent a significant step forward in achieving consistency and clarity in respect of seasonal reserve procurement. As such we have chosen to reflect this by establishing a single service name "Short Term Operating Reserve" which better reflects the requirement that it meets and the way in which provision of the service has developed. This consultation is therefore required to replace references to Standing Reserve and Supplemental Standing Reserve with the new service name of Short Term Operating Reserve (STOR) in relevant C16 documentation.

A separate change to the BSAD Methodology Statement is also the subject of this consultation which is to establish an enduring methodology for the calculation of (Standing Reserve) STOR weighting factors; these weighting factors are based on historical utilisation of reserve and allocate the daily STOR option fees into appropriate settlement periods within the day. The weighted costs subsequently feed into imbalance prices via the BSAD variable BPA.

The key elements of the proposals are:

- Change references to Standing Reserve and Supplemental Standing Reserve to "Short Term Operating Reserve" and reflect the new service arrangements in the relevant documents.
- The weighting factors will be updated periodically using an agreed calculation methodology (outlined in BSAD Methodology Statement) and will be published on National Grid's website.

National Grid believes that the Short Term Operating Reserve service will improve the clarity, consistency and efficiency of seasonal reserve procurement arrangements and periodic updating of the weighting factors will improve the cost reflectivity of imbalance prices.

Subject to Ofgem's approval, the proposed changes will become effective on 1 April 2007.

Consultation Process

This consultation seeks views on proposed amendments to the Procurement Guidelines, Balancing Principles Statement, Balancing Services Adjustment Data Methodology Statement, and Applicable Balancing Services Volumes Data Methodology Statement. It is being carried out in accordance with the provisions contained within Standard Condition 16 of National Grid's Transmission Licence¹.

The proposed changes consist of two main elements:

- The replacement of the Standing Reserve and Supplemental Standing Reserve services with the Short Term Operating Reserve (STOR) service;
- Periodic calculation and publication of the STOR weighting factors.

This document contains the background to the changes, and the proposed amendments to the current versions of the C16 statements.

Copies of the C16 statements with the proposed changes are attached to this consultation as Appendices A (Procurement Guidelines), B (Balancing Principles Statement), C (Balancing Services Adjustment Data Methodology Statement – proposed changes for STOR service only), D (Applicable Balancing Services Volumes Data Methodology Statement) and E (Balancing Services Adjustment Data Methodology Statement – proposed changes for STOR service and STOR weighting factors).

Following receipt of responses to this consultation, National Grid will prepare and submit a report (in accordance with Transmission Licence Standard Condition C16 paragraph 8) to the Authority. The consultation document, consultation report, and all responses, will be published on National Grid's website:

<http://www.nationalgrid.com/uk/Electricity/Balancing/consultations/>

The current version of the C16 statements can be found at the following link:

<http://www.nationalgrid.com/uk/Electricity/Balancing/transmissionlicensestatements/>

¹ The statements produced under Standard Condition 16 are referred to as C16 statements in this consultation.

Consultation Timescales

In accordance with the provisions of Standard Condition C16 of National Grid's Transmission Licence, the consultation period will be 28 days. Therefore the consultation timetable is as follows:

Consultation published	Monday 22 January 2007
Closing date for responses	Monday 5pm, 19 February 2007
Consultation Report to the Authority	Monday 26 February 2007

Document Structure

The remainder of this document is structured as follows:

- Background
- Short Term Operating Reserve (STOR) Service
- Proposed Changes for Calculation and Publication of the STOR Weighting Factors
- Proposed Implementation date
- Summary of Changes
- Consultation Questions
- Appendices

Background

National Grid conducted a review² of its reserve requirements in 2005. The main objectives of the review were:

- To ensure that National Grid has an appropriate suite of Balancing Services which it can use to meet its operational reserve requirements;
- To ensure these Services are procured in an efficient and economic manner, via market based mechanisms where competition exists;
- To ensure parties are given equal opportunity to participate;
- To ensure that these Services are procured and used in a way which complements the energy market; and
- To ensure Market Participants understand when and how these Services will be required, procured and used.

The review process included industry workshops as well as bilateral meetings with a variety of parties to discuss the procurement of reserve in different timescales. The findings of the reserve review were also discussed at a cross-industry Cashout Review Group (CORWG) established by Ofgem, and the discussions at the CORWG were fed into the reserve review considerations.

The reserve review findings received broad support from the industry and, as a consequence, National Grid developed detailed proposals for within-day reserve procurement and seasonable reserve procurement.

In December 2006, National Grid also consulted on interim proposals for revisions to the reserve weighting factors. These weighting factors are derived from historical utilisation of reserve and allocate the daily reserve option fees into appropriate settlement periods within the day. The weighted costs subsequently feed into imbalance prices via the BSAD variable BPA. The interim proposals for revisions to the weighting factors were implemented on 22 January 2007.

In the December 2006 consultation, and subsequent report to the Authority, National Grid stated that it would bring forward enduring proposals to replace the interim arrangements for future revisions to the weighting factors.

This consultation therefore focuses on the two separate but related elements of seasonal reserve procurement:

- Proposals to replace the Standing Reserve and Supplemental Standing Reserve with Short Term Operating Reserve (STOR);
- Proposals to implement enduring arrangements for updating the STOR weighting factors.

² http://www.nationalgrid.com/NR/rdonlyres/F66EE1F1-3CEB-4095-98AB-4E650EFC6811/1287/0905_ReserveReviewConclusions.pdf

Further details of the above proposals are given in the subsequent sections of this document.

Short Term Operating Reserve (STOR) Service

The Short Term Operating Reserve (STOR) service is fundamentally the same as the current SR and SSR service i.e. it is intended to give National Grid access to additional power, in the form of either additional generation or demand reduction, so that it is able to deal with demand variations and/or unforeseen generation unavailability.

STOR establishes a number of enhancements to the existing SR/SSR service which include:

- A single product and procurement mechanism for the procurement of seasonal reserve.
- A maximum Response Time (time from instruction to the delivery of contracted MW) which has been increased from 20 minutes to 240 minutes. This is intended to encourage further participation from Demand Side (and other) providers who may have been unable to meet the response time requirements of Standing Reserve.
- Providers can tender for up to two years, providing greater certainty of income for those providers who value this.
- Tenders will be held more frequently, to give increased opportunity to new service providers, and those unsuccessful in previous tenders.
- Changes to the contractual framework to minimise the contracting lead time to reduce the time between tender and service provision, thereby reducing risk to providers.

These developments are intended to increase the flexibility of the service which should reduce risks to providers, encourage new providers (particularly from the demand side) and therefore promote greater competition in the provision of the service.

The proposed changes for the STOR service are summarised in Table 1 in the section 'Summary of Proposed Changes', and are shown in change-marked versions of C16 Statements in Appendices A (Procurement Guidelines), B (Balancing Principles Statement), C (Balancing Services Adjustment Data Methodology Statement – proposed changes for STOR service only) and D (Applicable Balancing Services Volumes Data Methodology Statement).

A beneficial consequence of replacing the Standing Reserve and Supplemental Standing Reserve with a single service name (STOR) is that there is only one set of STOR availability windows for a given season. This removes the possibility of any misalignment between the availability windows in the same season (in the December 2006 consultation, it was graphically shown that the misalignment between the Standing Reserve window and the Supplemental Standing Reserve window contributed to unrepresentative value of BPA).

Proposed Changes for the Calculation and Publication of STOR Weighting Factors

Currently, the SR weighting factors reside in the BSAD Methodology Statement. These weighting factors were recently updated using the most recent historical utilisation data as part of the 'interim' December 2006 consultation on the BSAD Methodology Statement.

In developing the proposals for the STOR weighting factors, National Grid has considered the following main areas:

- 1) Should the weighting factors be updated periodically?
- 2) If so,
 - a) What should the duration of the historical reserve utilisation data be?
 - b) What is the most efficient way of updating the weighting factors?

National Grid believes that the current weighting factors should be updated periodically. The December 2006 consultation demonstrated that the updated weighting factors improved the cost-reflectivity of the reserve option fees, resulting in a more cost-reflective BPA (Buy Price Adjustment) and improved market signals via the System Buy Price. It is intended that the updates would occur twice-yearly and will be published well in advance.

National Grid recognises that the periodic updating of the weighting factors may be perceived as less stable with frequent changes to the weighting factors. However, National Grid believes that the benefits of regular updating of the weighting factors far outweigh any downside, particularly the favourable impact that this has on the cost-reflectivity and market signals.

National Grid believes that the proposed approach will ensure that the enduring solution incorporates the most recent historical reserve utilisation data and that any changes in the reserve utilisation patterns are appropriately reflected in the cost allocation process for the reserve option fees.

With regard to the duration of the historical reserve utilisation data used in the calculation of the weighting factors, National Grid considers that the most recent data from a single year is sufficient to represent any variations in reserve utilisation across the year. Since the historical reserve utilisation for a given Settlement Period is aggregated across the whole season, a weighting factor based on aggregated data is likely to smooth out any unrepresentative days.

Using previous year's data also ensures that the resulting weighting factors are as close as possible to the current year's availability windows. This consistency ensures that the option fees are better reflected in appropriate settlement periods, resulting in a more cost-reflective BPA. If the weighting factors are based on, say, the last two years' data, the resulting 'average'

profiles may adversely affect the cost-reflectivity in the calculation of BPA. National Grid therefore believes that it is more appropriate to use the most recent data from a single year.

National Grid believes that any enduring solution should be efficient as it will streamline the process for updating the weighting factors. This is achieved by incorporating a detailed calculation methodology into the BSAD Methodology Statement and publishing the weighting factors derived from this methodology on National Grid's industry information website. National Grid considers this to be an efficient way of updating the weighting factors as it does not require a full industry consultation for each update of the weighting factors. However, the approach also ensures that any changes to the calculation methodology will be consulted with the industry.

In summary, National Grid proposes to:

- Update the weighting factors using an agreed calculation methodology within the BSAD Methodology Statement.
- Publish the resulting weighting factors after each update on National Grid's website.

The proposed approach will introduce a transparent methodology for calculating the weighting factors in the BSAD Methodology Statement; it will also avoid the need for periodic consultations (which are likely to be more than one per year) every time the weighting factors are updated.

The proposed changes for the calculation and publication of the STOR weighting factors are summarised in Table 2 in the section 'Summary of Proposed Changes', and are shown in the change-marked version of the Balancing Services Adjustment Data Methodology Statement in Appendix E. The proposed changes for the STOR service (Appendix C) are also shown in Appendix E.

Appendix G shows the proposed weighting factors that have been derived using the proposed calculation methodology in Appendix E. For completeness, the current weighting factors are shown in Appendix F. It may be observed from the tables in Appendices F and G that, as a result of changes in market behaviour, National Grid has revised its reserve requirements and hence the duration of the seasons and the width of availability windows have been revised accordingly.

The current and proposed weighting factors are shown graphically in Appendix H which shows the weighting factor profiles for both Working Days and Non-Working Days in each season. It should be noted that the 2006-07 historical utilisation data is only available for the first three seasons (1 April 2006 – 24 September 2006), and hence a comparison between the current and proposed weighting factors is only made for these seasons.

The proposed weighting factors (subject to approval by the Authority) will be applicable for the period 1 April 2007- 24 September 2007; the remaining

weighting factors for 2007-08 will be derived once the historical utilisation data is available for the period 24 September 2006 – 1 April 2007.

Other Proposed Changes

National Grid is taking the opportunity to propose other minor changes of a housekeeping nature. These changes include correction to numerical examples and removal of redundant references. A summary of these changes is included in Tables 1 and 2 in the section ‘Summary of Proposed Changes’.

Proposed Implementation Date

In accordance with the provisions of Standard Condition C16 of National Grid’s Transmission Licence, the consultation period will be 28 days. Therefore the consultation timetable is as follows:

Consultation published	Monday 22 January 2007
Closing date for responses	Monday 5pm, 19 February 2007
Consultation Report to the Authority	Monday 26 February 2007

Subject to Ofgem approval of the proposed changes by Monday 26 March 2007, it is National Grid’s intention to implement the proposed changes on Sunday 1 April 2007.

Summary of Proposed Changes

The changes proposed for the C16 statements are summarised in the section below. The proposed changes consist of those that are necessary for the implementation of the STOR service (Table 1) and the additional proposed changes for the incorporation of STOR weighting factors (Table 2).

Table 1 - Proposed changes for STOR service

Procurement Guidelines		
Section	Change	Comment
Version Control Table	Insert “Revisions to incorporate Short Term Operating Reserve (STOR)”	Change required to introduce STOR
Part C, Section 1, Commercial Ancillary Services	Delete “Standing” and replace with “Short Term Operating”	Change required to introduce STOR
Part C, Section 1, Other Services	Delete “Standing” and replace with “Short Term Operating”	Change required to introduce STOR
Part C, Section 2.1, Ancillary Services	Delete “Standing” and replace with “Short Term Operating” and add “STOR” after “Reserve” Delete “... Plant that is not synchronised but which can start within a defined time period” and replace with “either increasing generation to the system, reducing demand (or a combination of both in defined timescales”	Changes required to introduce STOR
Part C, Section 3,	Delete “Standing Reserve” and replace	Change required to introduce

Demand Side Providers and Small Generators	with “Short Term Operating Reserve (STOR)”	STOR
Table 1, Ancillary Services, Reserve	In Column 1 delete “Standing Reserve” and replace with “STOR” In Column 3 after “As required” add “via tender process”	Changes required to introduce STOR
Table 1, Other Services	Delete “Standing Reserve” and replace with “STOR”	Change required to introduce STOR
Part E, Section 3. Information Provision Detail	Delete “Standing Reserve (annually)” and replace with “STOR (as required)” Delete the final redundant sentence.	Change required to introduce STOR
Table 2	Delete “Standing Reserve” and replace with “STOR” in Column 1 (Balancing Services) In Column 2 (Volume Information) after “Tendered Volume and Contracted Volume” add “from the latest tender round. System Reserve Requirements and contracted volume from previous tender rounds in the year will be published in advance of next tender rounds”. Delete “Contained in Standing Reserve Market Report” In Column 3 (Price Information) delete “contained within Standing Reserve Market Report” In Column 4 (Timescale) amend to read “STOR Market Information updated after each tender round” In Column 5 (Information Source) amend to read “All information will be contained within the Market Information Report available on National Grid’s Industry website” Delete all the remaining text in Columns 2-5 relating to Standing Reserve and BSAD Delete the footnote 2 on page 32	Changes required to introduce STOR
Balancing Principles Statement		
Section	Change	Comment
Version Control Table	Insert “Revisions to incorporate Short Term Operating Reserve (STOR)”	Change required to introduce STOR
Part D, Section 2.2, Step 4	Delete “warming contracts”	Housekeeping change
Part D, Section 2.3	Delete “warming contract the”	Housekeeping change
Part D, Section 3.2 (a)	Delete “Warming Contracts”	Housekeeping change
Part D, Section 3.2 (c)	In the heading delete “Standing and replace with “Short Term Operating”	Change required to introduce STOR

	<p>and add "(STOR)" after "Reserve"</p> <p>Delete "Standing Reserve is carried by contracted short notice generation and contracted demand that can be shut down within 20 minutes" and replace with "STOR is provided by contracted generation or demand reduction that can deliver reserve in short timescales"</p> <p>In lines 6 & 7 delete "Standing Reserve and replace with "(STOR)"</p> <p>Insert "reserve" after "Regulating" and delete "Standing reserves and replace with "STOR"</p> <p>Delete "standing" and replace with "STOR"</p>	
Part D, Section 3.2 (d)	Delete "/standing" and insert "and STOR" after "reserve"	Change required to introduce STOR
Part D, Section 3.3	In the sixth indent delete "standing reserve" and replace with "STOR"	Change required to introduce STOR
Part E, Section 1, Step 4	Delete "standing reserve" and replace with " STOR"	Change required to introduce STOR
Balancing Services Adjustment Data Methodology Statement		
Section	Change	Comment
Version Control Table	Insert "Revisions to incorporate Short Term Operating Reserve (STOR)"	Change required to introduce STOR
CONTENTS, SCHEDULE 1 Option Fees	Delete "Standing" and replace with "Short Term Operating"	Change required to introduce STOR
Part B, Section 1.2	<p>delete the title "Standing Reserve and Supplemental Standing Reserve" at the first bullet point and replace with "Short Term Operating Reserve (STOR)"</p> <p>In the second paragraph under the first bullet point delete "Standing Reserve and Supplemental Standing Reserve" and replace with "STOR"</p>	Change required to introduce STOR
Part C, Section 1	<p>In the definition of "BPA" delete "standing reserve and supplemental standing reserve" in lines 1 & 2 and replace with "STOR"</p> <p>In line 3 delete "standing reserve" and replace with "STOR"</p> <p>In line 6 delete "standing reserve and supplemental standing reserve" and replace with "STOR"</p>	Change required to introduce STOR
Part C, Section 2.1	<p>In the heading delete "Standing" and replace with "STOR"</p> <p>In the first bulleted paragraph delete the four references to "standing"</p>	Change required to introduce STOR

	<p>reserve” and replace with “STOR”</p> <p>In the first bulleted paragraph, second indent delete “that” and replace with “for”</p> <p>In the definition of “BPA” delete “standing reserve and supplemental standing reserve” in lines 1 & 2 and replace with “STOR”</p> <p>In line 3 delete “standing reserve” and replace with “STOR”</p> <p>In line 6 delete “standing reserve and supplemental standing reserve” and replace with “STOR”</p>	
<p>Part C, Section 2.2</p>	<p>In the heading delete “Standing” and replace with “STOR”</p> <p>In the first bulleted paragraph delete the four references to “standing reserve” and replace with “STOR”</p> <p>In the first bulleted paragraph, second indent delete “that” and replace with “for”</p> <p>In the definition of “BPA” delete “standing reserve and supplemental standing reserve” in lines 1 & 2 and replace with “STOR”</p> <p>In line 3 delete “standing reserve” and replace with “STOR”</p> <p>In line 6 delete “standing reserve and supplemental standing reserve” and replace with “STOR”</p>	<p>Change required to introduce STOR</p>
<p>Part C, Section 2.3</p>	<p>In the heading delete “Standing” and replace with “STOR”</p> <p>In the first bulleted paragraph delete the four references to “standing reserve” and replace with “STOR”</p> <p>In the first bulleted paragraph, second indent delete “that” and replace with “for”</p> <p>In the definition of “BPA” delete “standing reserve and supplemental standing reserve” in lines 1 & 2 and replace with “STOR”</p> <p>In line 3 delete “standing reserve” and replace with “STOR”</p>	<p>Change required to introduce STOR</p>

	In line 6 delete “standing reserve and supplemental standing reserve” and replace with “STOR”	
Part C, Section 2.4	<p>In the heading delete “Standing” and replace with “STOR”</p> <p>In the first bulleted paragraph delete the four references to “standing reserve” and replace with “STOR”</p> <p>In the first bulleted paragraph, second indent delete “that” and replace with “for”</p> <p>In the definition of “BPA” delete “standing reserve and supplemental standing reserve” in lines 1 & 2 and replace with “STOR”</p> <p>In line 3 delete “standing reserve” and replace with “STOR”</p> <p>In line 6 delete “standing reserve and supplemental standing reserve” and replace with “STOR”</p>	Change required to introduce STOR
Schedule 1, Heading	Delete “Standing Reserve” and replace with “Short Term Operating Reserve (STOR)”	Change required to introduce STOR
Applicable Balancing Services Volume Data Methodology Statement		
Section	Change	Comment
Version Control Table	Insert “Revisions to incorporate Short Term Operating Reserve (STOR)”	Change required to introduce STOR
CONTENTS, Part C, Heading 4.2	Delete “Standing Reserve” and replace with “ Short Term Operating Reserve”	Change required to introduce STOR
Part B, Section 1.2	<p>In the first bulleted paragraph delete the heading “Standing Reserve” and replace with “Short Term Operating Reserve (STOR)”</p> <p>In the second paragraph delete “Standing Reserve” and replace with “STOR”</p>	Change required to introduce STOR
Part C, Section 1	Delete “standing reserve” and replace with “STOR”	Change required to introduce STOR
Part C, Section 4.2	<p>Delete the “Standing Reserve” in the heading and replace with “Short term Operating Reserve (STOR)”</p> <p>In the second paragraph delete “standing reserve” and replace with “STOR”</p> <p>In the third paragraph delete “standing reserve” and replace with “STOR”</p> <p>In the Figure 2 heading, delete “Standing Reserve” and replace with</p>	Change required to introduce STOR

	"STOR"	
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Table 2 - Proposed changes for STOR Weighting Factors

Balancing Services Adjustment Data Methodology Statement		
Section	Change	Comment
Version Control Table	Insert "Revisions to incorporate Short Term Operating Reserve (STOR)"	Change required to introduce STOR
CONTENTS, SCHEDULE 1 Option Fees	Delete "Standing" and replace with "Short Term Operating"	Change required to introduce STOR
Part B, Section 1.2	delete the title "Standing Reserve and Supplemental Standing Reserve" at the first bullet point and replace with "Short Term Operating Reserve (STOR)" In the second paragraph under the first bullet point delete "Standing Reserve and Supplemental Standing Reserve" and replace with "STOR"	Change required to introduce STOR
Part C, Section 1	In the definition of "BPA" delete "standing reserve and supplemental standing reserve" in lines 1 & 2 and replace with "STOR" In line 3 delete "standing reserve" and replace with "STOR"; delete "contained" and insert "set out"; delete "Schedule 1" and insert "Part D". In line 6 delete "standing reserve and supplemental standing reserve" and replace with "STOR"	Change required to introduce STOR
Part C, Section 2.1	In the heading delete "Standing" and replace with "STOR" In the first bulleted paragraph delete the four references to "standing reserve" and replace with "STOR" In the first bulleted paragraph, second indent delete "that" and replace with "for" In the definition of "BPA" delete "standing reserve and supplemental standing reserve" in lines 1 & 2 and replace with "STOR" In line 3 delete "standing reserve" and replace with "STOR"; delete "contained" and insert "set out"; delete "Schedule 1" and insert "Part D". In line 6 delete "standing reserve and supplemental standing reserve" and	Change required to introduce STOR

	replace with "STOR"	
Part C, Section 2.2	<p>In the heading delete "Standing" and replace with "STOR"</p> <p>In the first bulleted paragraph delete the four references to "standing reserve" and replace with "STOR"</p> <p>In the first bulleted paragraph, second indent delete "that" and replace with "for"</p> <p>In the definition of "BPA" delete "standing reserve and supplemental standing reserve" in lines 1 & 2 and replace with "STOR"</p> <p>In line 3 delete "standing reserve" and replace with "STOR"; delete "contained" and insert "set out"; delete "Schedule 1" and insert "Part D".</p> <p>In line 6 delete "standing reserve and supplemental standing reserve" and replace with "STOR"</p>	Change required to introduce STOR
Part C, Section 2.3	<p>In the heading delete "Standing" and replace with "STOR"</p> <p>In the first bulleted paragraph delete the four references to "standing reserve" and replace with "STOR"</p> <p>In the first bulleted paragraph, second indent delete "that" and replace with "for"</p> <p>In the definition of "BPA" delete "standing reserve and supplemental standing reserve" in lines 1 & 2 and replace with "STOR"</p> <p>In line 3 delete "standing reserve" and replace with "STOR"; delete "contained" and insert "set out"; delete "Schedule 1" and insert "Part D".</p> <p>In line 6 delete "standing reserve and supplemental standing reserve" and replace with "STOR"</p>	Change required to introduce STOR
Part C, Section 2.4	<p>In the heading delete "Standing" and replace with "STOR"</p> <p>In the first bulleted paragraph delete the four references to "standing reserve" and replace with "STOR"</p>	Change required to introduce STOR, clarify the use of BM Start-Up contracts in the BPA calculation, and correct typographical error in numerical example 2.4.

	<p>In the first bulleted paragraph, second indent delete “that” and replace with “for”</p> <p>In the seventh bulleted paragraph, amend the second sentence to read “Instructions on contracts have proceeded to term”</p> <p>In the definition of “BPA” delete “standing reserve and supplemental standing reserve” in lines 1 & 2 and replace with “STOR”</p> <p>In line 3 delete “standing reserve” and replace with “STOR”; delete “contained” and insert “set out”; delete “Schedule 1” and insert “Part D”.</p> <p>In line 6 delete “standing reserve and supplemental standing reserve” and replace with “STOR”</p> <p>In the BPA calculation, correct typographical errors.</p>	
Part D, Calculation and Publication of Short Term Operating Reserve (STOR) Weighting Factors	Insert new Part D (see complete text in change marked version)	Change required to introduce calculation methodology for STOR Weighting Factors
Schedule 1	Delete Schedule 1	Change required to introduce calculation methodology for STOR Weighting Factors

Consultation Questions

National Grid invites views on the following questions:

Q	Question	Response	Rationale
All	1. Do you agree that references to Short Term Operating Reserve (STOR) have been incorporated into the relevant documentation (in place of SR and SSR) correctly?	Yes / No	
All	2. Do you agree that the STOR weighting factors should be updated periodically?	Yes / No	
All	3. Do you agree that the most recent historical reserve utilisation data from a single year is sufficient to derive the STOR weighting factors?	Yes / No	
All	4. Do you agree that it is appropriate to place the weighting factor	Yes / No	

	calculation methodology in the BSASD Methodology Statement, and publish the updated weighting factors on National Grid's industry information website?		
All	5. Do you have any other comments to make?	Yes / No	

Consultation Responses

Consultation responses should be forwarded to the Balancing Services e-mail address BalancingServices@uk.ngrid.com by **5.00pm on 19 February 2007**. Comments will be reviewed, and National Grid will then prepare a report to the Authority.

A full copy of all responses will be provided to the Authority and will be made publicly available on the Industry Information web site.

APPENDIX A
Proposed Changes to Procurement Guidelines

[Please see separate document for proposed changes to Procurement Guidelines]

APPENDIX B
Proposed Changes to Balancing Principles Statement

[Please see separate document for proposed changes to Balancing Principles Statement]

APPENDIX C
Proposed Changes to Balancing Services Adjustment Data Methodology
Statement - STOR Service only

[Please see a separate document for proposed changes to Balancing Services Adjustment Data Methodology Statement - STOR Service only]

APPENDIX D
Proposed Changes to Applicable Balancing Services Volume Data
Methodology Statement

[Please see a separate document for proposed changes to Applicable
Balancing Services Volume Data Methodology Statement]

APPENDIX E
Proposed Changes to Balancing Services Adjustment Data Methodology
Statement - STOR Service and STOR Weighting Factors

[Please see a separate document for proposed changes to Balancing Services Adjustment Data Methodology Statement - STOR Service and STOR Weighting Factors]

Appendix F Current Standing Reserve Weighting Factors



Settlement Period 'j'	1 st Apr – 5 th Jun		5 th Jun – 4 th Sep		4 th Sep – 29 th Oct		29 th Oct – 5 th Feb		5 th Feb – 25 th Mar		25 th Mar – 1 st Apr	
	WD1_cur	NWD1_cur	WD2_cur	NWD2_cur	WD3_cur	NWD3_cur	WD4_cur	NWD4_cur	WD5_cur	NWD5_cur	WD6_cur	NWD6_cur
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	6.58%	0.00%	1.53%	0.00%	2.47%	0.00%	4.21%	0.00%	4.75%	0.00%	6.58%	0.00%
16	7.67%	0.00%	1.27%	0.00%	3.48%	0.00%	4.94%	0.00%	2.36%	0.00%	7.67%	0.00%
17	5.49%	0.00%	3.47%	0.00%	3.32%	0.00%	3.88%	0.00%	3.17%	0.00%	5.49%	0.00%
18	2.72%	0.00%	2.46%	0.00%	2.30%	0.00%	2.36%	0.00%	3.82%	0.00%	2.72%	0.00%
19	3.96%	0.00%	3.91%	0.23%	3.69%	0.00%	4.10%	0.00%	6.82%	0.00%	3.96%	0.00%
20	4.29%	0.00%	4.39%	1.46%	4.19%	0.00%	3.02%	0.00%	7.33%	0.00%	4.29%	0.00%
21	3.65%	1.63%	5.60%	3.05%	4.21%	0.64%	3.47%	0.00%	5.74%	13.90%	3.65%	1.63%
22	5.41%	6.44%	6.10%	1.71%	4.52%	1.00%	3.64%	0.00%	5.19%	9.08%	5.41%	6.44%
23	6.73%	7.68%	6.28%	4.79%	4.63%	1.37%	3.73%	7.41%	5.55%	6.63%	6.73%	7.68%
24	4.96%	6.86%	6.96%	7.45%	5.29%	3.32%	3.51%	7.65%	3.58%	5.89%	4.96%	6.86%
25	5.25%	11.00%	7.83%	13.78%	4.50%	5.20%	3.80%	9.59%	3.29%	8.65%	5.25%	11.00%
26	3.61%	9.21%	6.62%	10.46%	3.04%	5.66%	3.56%	8.68%	2.99%	11.89%	3.61%	9.21%
27	0.00%	7.91%	7.03%	13.57%	3.32%	0.00%	3.15%	8.06%	2.82%	0.00%	0.00%	7.91%

Settlement Period 'j'	1 st Apr – 5 th Jun		5 th Jun – 4 th Sep		4 th Sep – 29 th Oct		29 th Oct – 5 th Feb		5 th Feb – 25 th Mar		25 th Mar – 1 st Apr	
	WD1_cur	NWD1_cur	WD2_cur	NWD2_cur	WD3_cur	NWD3_cur	WD4_cur	NWD4_cur	WD5_cur	NWD5_cur	WD6_cur	NWD6_cur
28	0.00%	3.78%	6.77%	0.00%	2.01%	0.00%	2.47%	0.00%	2.94%	0.00%	0.00%	3.78%
29	0.00%	3.26%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.26%
30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
31	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
32	0.00%	0.00%	3.22%	0.00%	0.00%	0.00%	1.52%	0.00%	0.00%	0.00%	0.00%	0.00%
33	1.87%	0.00%	2.25%	0.00%	2.83%	0.00%	3.22%	4.65%	0.00%	0.00%	1.87%	0.00%
34	4.31%	1.99%	3.19%	0.00%	4.72%	0.00%	6.24%	9.67%	1.91%	0.00%	4.31%	1.99%
35	4.47%	2.09%	2.22%	0.00%	4.44%	0.00%	8.72%	14.25%	3.60%	6.02%	4.47%	2.09%
36	3.25%	3.75%	2.13%	0.00%	4.52%	1.10%	7.09%	10.78%	5.32%	6.43%	3.25%	3.75%
37	1.15%	3.52%	0.00%	0.82%	5.91%	6.27%	5.31%	7.76%	8.45%	10.82%	1.15%	3.52%
38	0.69%	0.00%	0.00%	1.05%	7.71%	12.75%	3.09%	3.10%	8.26%	6.97%	0.69%	0.00%
39	2.46%	0.00%	0.00%	3.25%	7.94%	15.86%	3.44%	4.68%	7.23%	7.40%	2.46%	0.00%
40	5.18%	5.87%	2.09%	2.76%	5.77%	20.27%	3.61%	3.71%	4.85%	6.30%	5.18%	5.87%
41	6.90%	8.40%	2.65%	4.21%	5.20%	8.89%	4.77%	0.00%	0.00%	0.00%	6.90%	8.40%
42	4.01%	5.13%	2.89%	6.55%	0.00%	8.61%	3.15%	0.00%	0.00%	0.00%	4.01%	5.13%
43	5.37%	6.24%	4.04%	10.29%	0.00%	9.07%	0.00%	0.00%	0.00%	0.00%	5.37%	6.24%
44	0.00%	5.24%	1.87%	4.41%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.24%
45	0.00%	0.00%	3.23%	6.31%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
46	0.00%	0.00%	0.00%	3.84%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
47	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<i>SUM</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>

WD= Working Day WD window
NWD= Non-Working Day NWD window

**Appendix G
Proposed STOR Weighting Factors**



Settlement Period 'j'	1 Apr – 29 Apr		29 Apr – 19 Aug		19 Aug – 24 Sep		24 Sep – 28 Oct		28 Oct – 3 Feb		3 Feb – 1 Apr	
	WD1_new	NWD1_new	WD2_new	NWD2_new	WD3_new	NWD3_new	WD4_new	NWD4_new	WD5_new	NWD5_new	WD6_new	NWD6_new
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	2.66%	0.00%	0.00%	0.00%	0.00%	0.00%	1.94%	0.00%	3.28%	0.00%	3.17%	0.00%
16	1.24%	0.00%	0.56%	0.00%	0.92%	0.00%	3.53%	0.00%	3.97%	0.00%	3.14%	0.00%
17	1.11%	0.00%	1.87%	0.00%	1.30%	0.00%	4.94%	0.00%	3.79%	0.00%	2.76%	0.00%
18	4.11%	0.00%	1.62%	0.00%	1.78%	0.00%	4.05%	0.00%	3.10%	0.00%	3.57%	0.00%
19	7.36%	0.00%	2.67%	0.00%	2.45%	0.00%	3.37%	0.00%	3.48%	0.00%	6.00%	0.00%
20	9.41%	0.00%	3.41%	1.89%	3.21%	0.00%	3.48%	0.00%	2.74%	0.00%	6.02%	0.00%
21	8.72%	1.51%	4.42%	3.53%	6.18%	0.00%	2.78%	0.00%	3.12%	0.00%	4.77%	0.00%
22	9.21%	4.46%	6.11%	0.77%	11.11%	0.00%	2.69%	0.00%	3.41%	2.09%	4.73%	9.85%
23	9.63%	7.34%	6.34%	1.57%	10.89%	0.09%	2.85%	0.00%	3.17%	4.43%	5.42%	4.57%
24	8.25%	9.52%	8.30%	5.68%	10.88%	9.04%	2.60%	3.52%	3.16%	5.40%	4.12%	3.60%
25	3.92%	14.70%	8.58%	12.30%	9.90%	27.43%	2.63%	5.51%	3.85%	6.42%	3.29%	6.98%
26	0.45%	14.41%	6.79%	14.00%	4.51%	25.64%	2.73%	5.90%	3.59%	6.46%	3.28%	9.50%
27	0.00%	9.95%	5.44%	6.66%	2.15%	21.12%	0.88%	1.02%	2.80%	5.63%	2.86%	7.88%

Appendix G Proposed STOR Weighting Factors



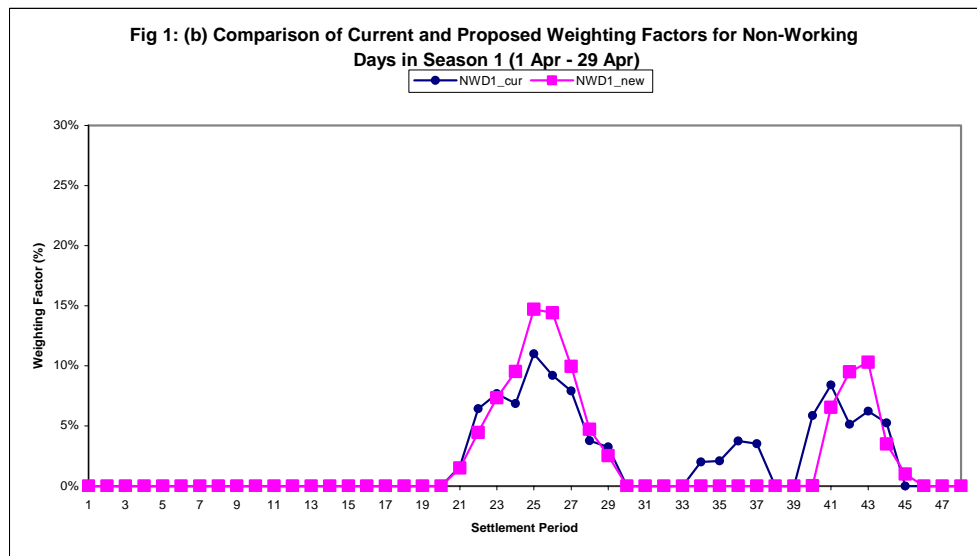
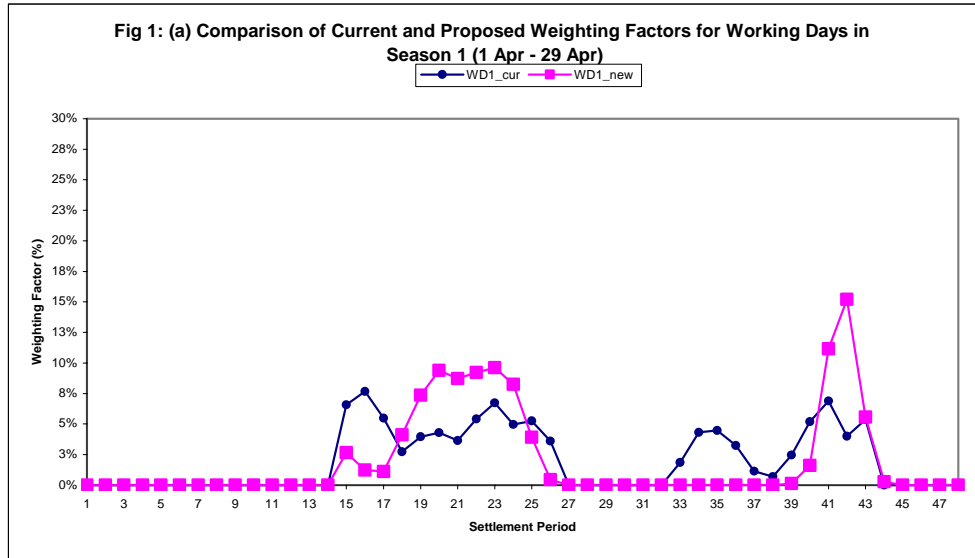
Settlement Period 'j'	1 Apr – 29 Apr		29 Apr – 19 Aug		19 Aug – 24 Sep		24 Sep – 28 Oct		28 Oct – 3 Feb		3 Feb – 1 Apr	
	WD1_new	NWD1_new	WD2_new	NWD2_new	WD3_new	NWD3_new	WD4_new	NWD4_new	WD5_new	NWD5_new	WD6_new	NWD6_new
28	0.00%	4.73%	3.93%	0.00%	1.21%	0.00%	0.00%	1.31%	0.00%	0.00%	0.00%	0.00%
29	0.00%	2.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
31	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
32	0.00%	0.00%	2.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
33	0.00%	0.00%	5.96%	0.00%	3.58%	0.00%	0.00%	0.00%	0.00%	2.01%	0.00%	0.00%
34	0.00%	0.00%	8.21%	0.00%	5.74%	0.00%	3.16%	0.00%	8.10%	10.34%	1.19%	0.00%
35	0.00%	0.00%	8.08%	0.00%	6.85%	0.00%	3.59%	0.00%	13.26%	20.86%	2.29%	4.52%
36	0.00%	0.00%	5.11%	0.00%	1.66%	0.00%	3.57%	0.02%	10.57%	14.46%	5.32%	9.48%
37	0.00%	0.00%	0.00%	0.00%	0.84%	0.00%	8.54%	6.24%	7.33%	9.09%	10.27%	17.51%
38	0.00%	0.00%	0.00%	0.00%	0.39%	0.00%	16.22%	18.56%	4.00%	3.95%	10.74%	12.13%
39	0.13%	0.00%	0.00%	0.70%	0.55%	0.00%	14.12%	18.86%	3.05%	1.28%	7.41%	7.92%
40	1.61%	0.02%	0.64%	0.60%	1.89%	0.58%	7.39%	21.67%	3.21%	1.73%	5.10%	4.06%
41	11.16%	6.55%	0.63%	1.11%	6.26%	2.09%	3.29%	9.77%	4.22%	5.86%	4.54%	1.99%
42	15.22%	9.50%	1.37%	4.48%	3.49%	4.72%	1.65%	4.15%	2.82%	0.00%	0.00%	0.00%
43	5.57%	10.30%	2.71%	18.21%	2.26%	8.60%	0.00%	3.47%	0.00%	0.00%	0.00%	0.00%
44	0.27%	3.50%	2.05%	11.63%	0.00%	0.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
45	0.00%	0.99%	2.32%	16.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
46	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
47	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SUM	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

* Since the proposed weighting factors are derived on a rolling basis and are dependent upon the availability of historical reserve utilisation data, these weighting factors have been derived using the 2005-06 reserve utilisation data.

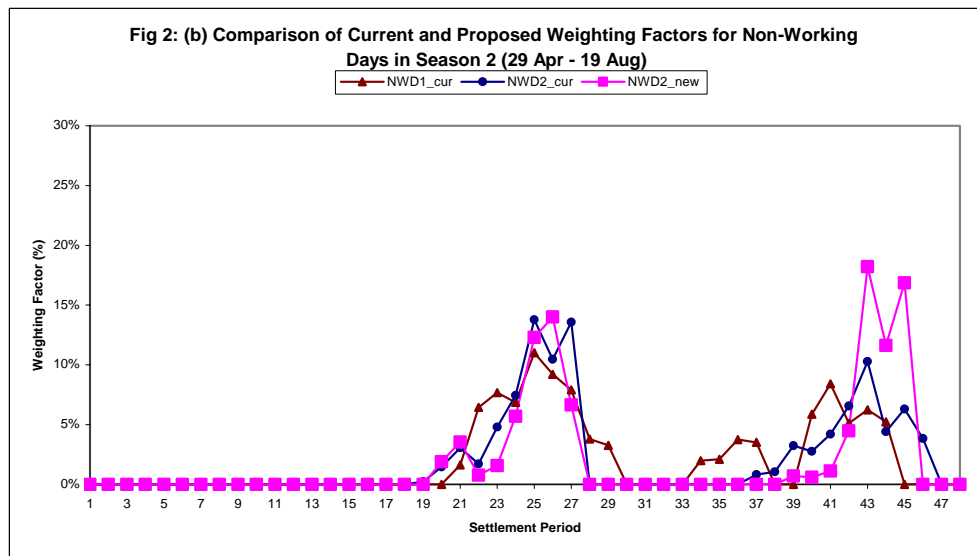
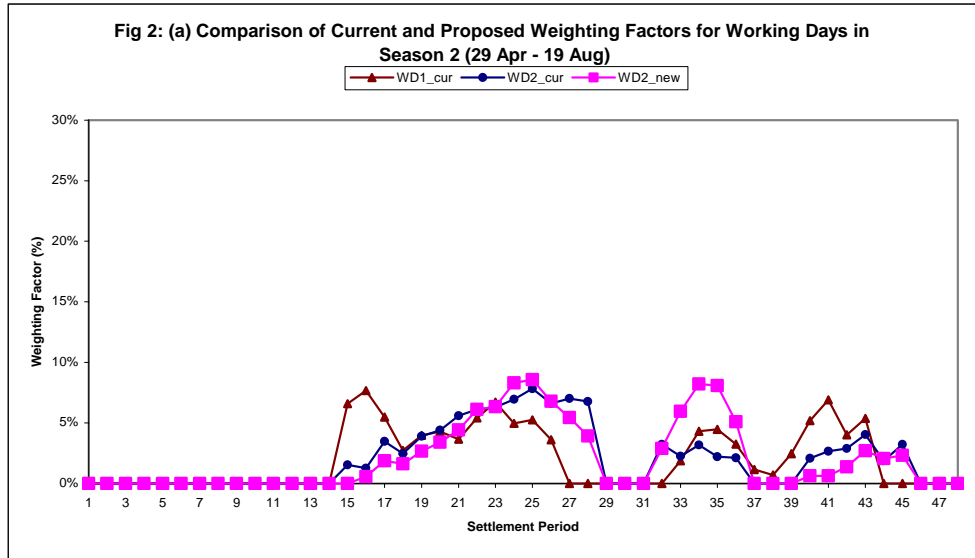
Note: The weighting factors in **bold** correspond to the duration of availability windows.

APPENDIX H

Comparison of Current and Proposed Weighting Factors for Season 1

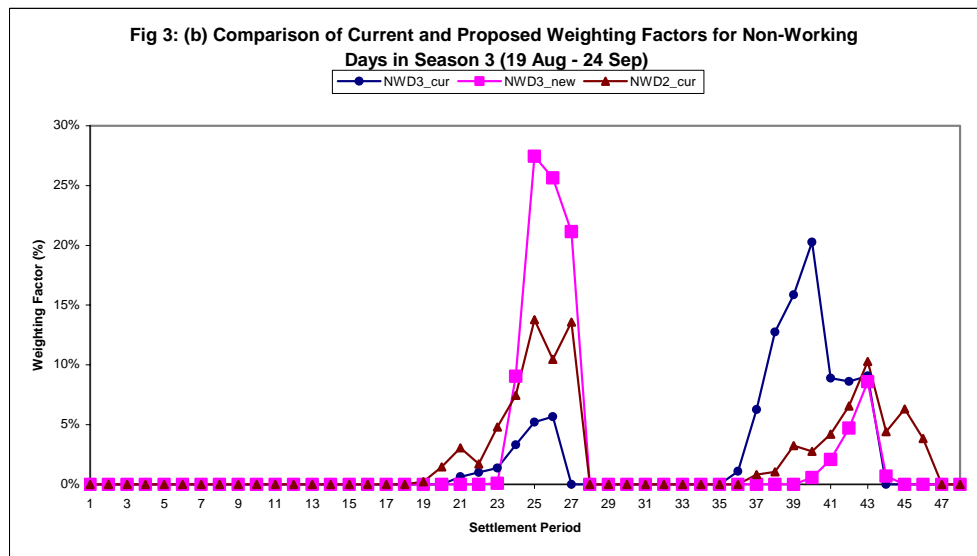
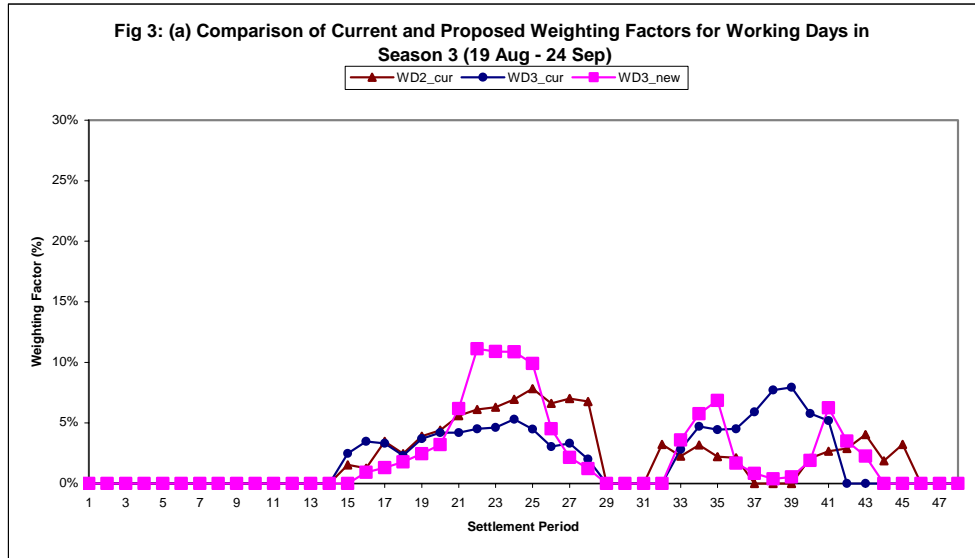


APPENDIX H (cont.) Comparison of Current and Proposed Weighting Factors for Season 2



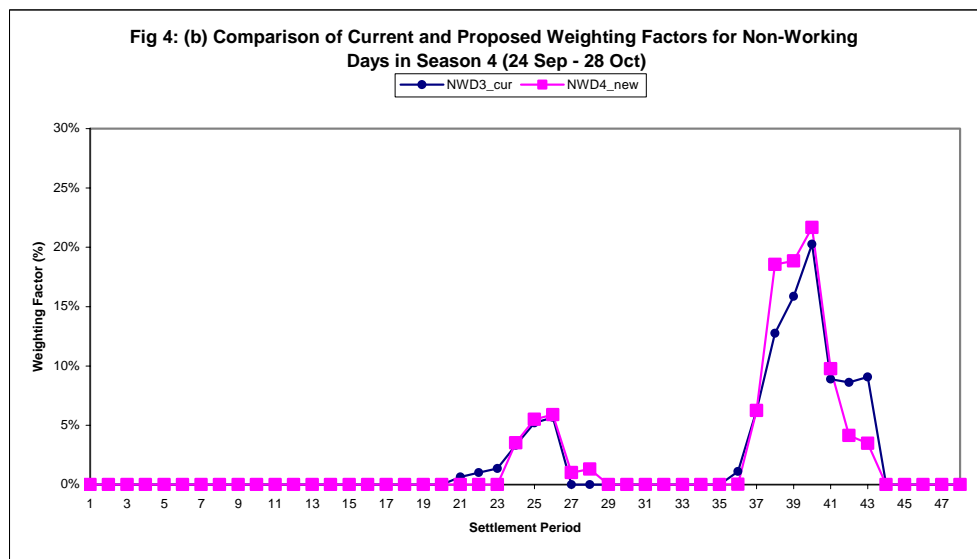
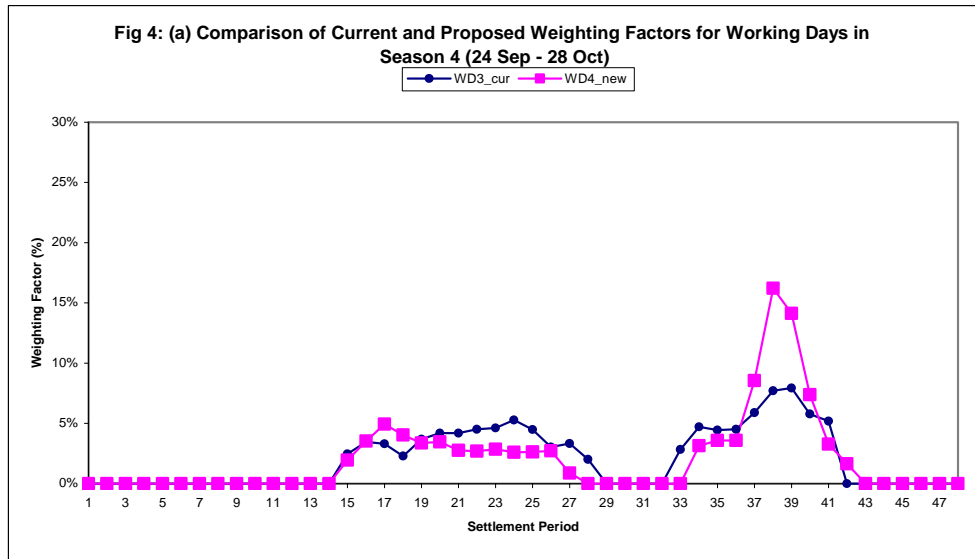
Note: Two profiles for the current weighting factors are shown as two current seasons (1 Apr - 5 Jun and 5 Jun - 4 Sep) span the period 29 Apr - 19 Aug

APPENDIX H (cont.)
Comparison of Current and Proposed Weighting Factors for Season 3



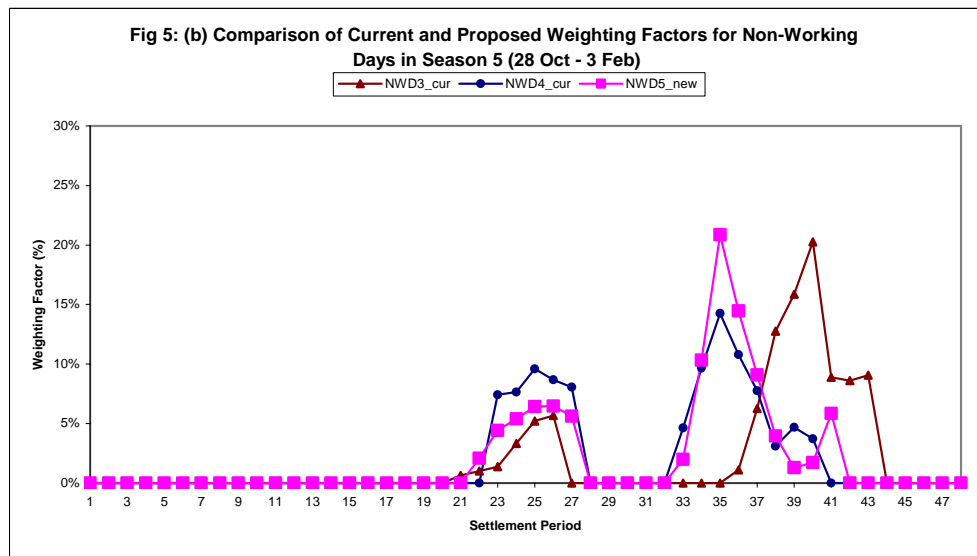
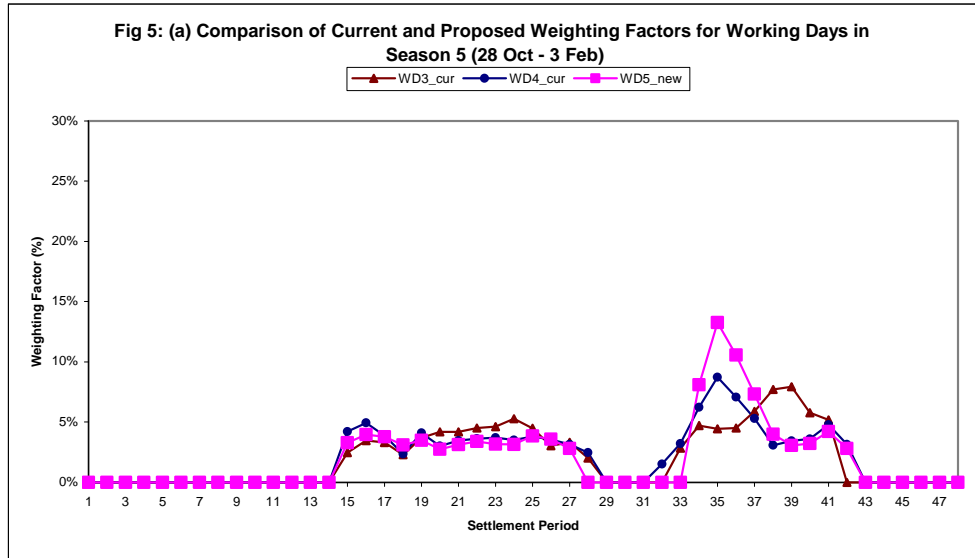
Note: Two profiles for the current weighting factors are shown as two current seasons (5 Jun - 4 Sep and 4 Sep - 29 Oct) span the period 29 Apr - 19 Aug

APPENDIX H (cont.) Comparison of Current and Proposed Weighting Factors for Season 4



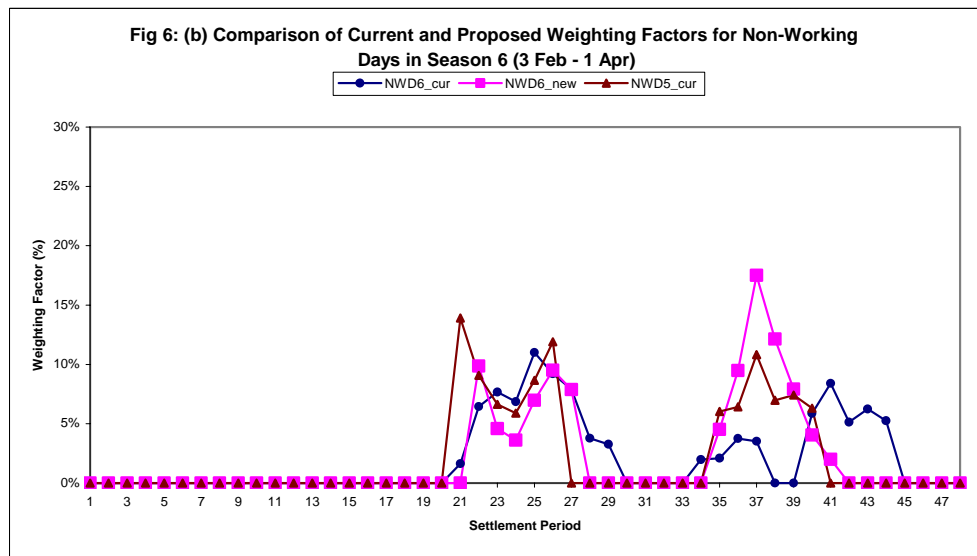
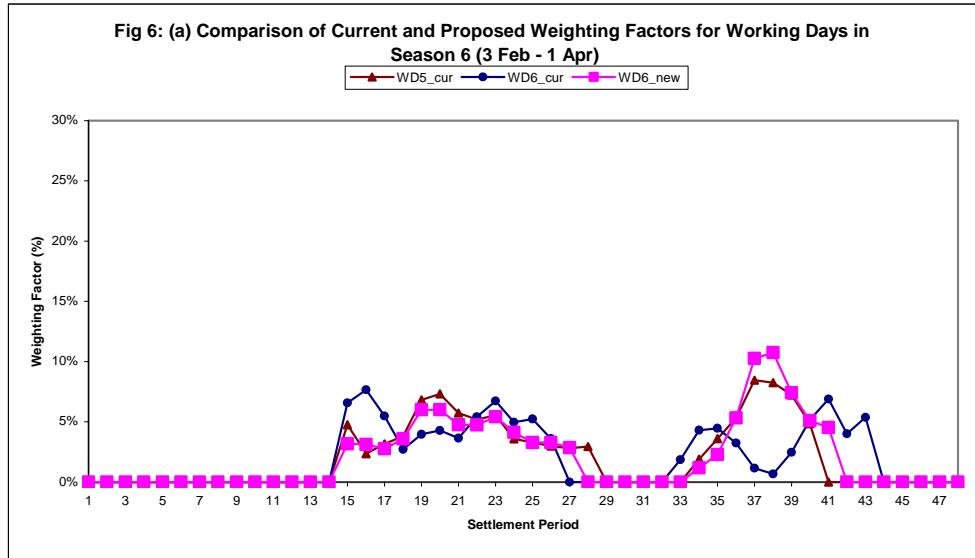
Note: The new season 4 (24 Sep - 8 Oct) falls within the current season 3 (4 Sep - 29 Oct) and hence the weighting factor profiles for the new season 4 are compared with the current season 3

APPENDIX H (cont.)
Comparison of Current and Proposed Weighting Factors for Season 5



Note: Two profiles for the current weighting factors are shown as two current seasons (4 Sep - 29 Oct and 29 Oct - 5 Feb) span the period 28 Oct - 3 Feb

APPENDIX H (cont.) Comparison of Current and Proposed Weighting Factors for Season 6



Note: Two profiles for the current weighting factors are shown as two current seasons (5 Feb - 25 Mar and 25 Mar - 1 Apr) span the period 3 Feb - 1 Apr