

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

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

**A Report by National Grid
February 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). We propose the establishment of 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.

Changes are required to the Procurement Guidelines, the Balancing Principles Statement, the BSAD Methodology Statement (to establish an enduring methodology for the calculation of STOR weighting factors) and the Applicable Balancing Services Volume Data Methodology Statement.

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.
- Periodically update the weighting factors using an agreed calculation methodology (outlined in BSAD Methodology Statement) and publish them 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.

Summary

This document has been prepared and submitted to the Authority in accordance with Standard Condition 16 of NGET's Transmission Licence. It reports upon the outcome of the recent consultation process undertaken by

National Grid with Industry Parties in relation to proposed changes to the BSAD Methodology Statement. The changes consulted upon covered the following:

- Change references to Standing Reserve and Supplemental Standing Reserve to “Short Term Operating Reserve” and reflect the new service arrangements in the relevant documents.
- Periodically update the weighting factors using an agreed calculation methodology (outlined in BSAD Methodology Statement) and publish them on National Grid’s website.

The consultation period was 28 days in accordance with Standard Condition 16 of NGET’s Transmission Licence.

Following the consultation, National Grid recommends that the Authority approves the revised versions of the Statements. Subject to the approval by the Authority by 26th March 2007, the proposed changes will become effective from 1st April 2007.

Appendices

The attachments to this Report are detailed below:

Appendix 1	Consultation paper by National Grid on the introduction of STOR published on 22 nd January 2007
Appendix 2	Charts showing the effect of two-year historical data on the weighting factors
Appendix A	Change-marked version of the Procurement Guidelines
Appendix B	Change-marked version of the Balancing Principles Statement
Appendix C	Change-marked version of the Balancing Services Adjustment Data Methodology Statement for STOR service
Appendix D	Change-marked version of the Applicable Balancing Services Volume Data Methodology Statement
Appendix E	Change-marked version of the Balancing Services Adjustment Data Methodology Statement for STOR service and STOR weighting factors
Appendix F	Copies of the responses received to the consultation

Representations Received

Three responses to the consultation were received from:

E.ON UK
RWE Trading
EDF Energy

Copies of the responses to the consultation are attached to this report and can be found in Appendix F.

Summary of Responses Received

All respondents supported the proposed 'name change' of the reserve service from Standing Reserve and Supplemental Standing Reserve to STOR.

There is also general support for the proposed calculation methodology for updating the STOR weighting factors although there are comments on certain aspects of the proposed methodology.

An overview of the responses received is contained in the following table.

Question	E.On	RWE	Edf
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.	Yes.	Not stated.
2. Do you agree that the STOR weighting factors should be updated periodically?	Yes. But would be concerned if updated too frequently.	Yes. But periodic updates should relate to individual STOR services and weighting factors should be published at a similar time to the STOR tender documents.	Not stated.
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. Use of data from a single year is a reasonable position to start from, but the accuracy of the methodology should be kept under review.	No. The weighting factors should be derived from a forward looking assessment of the likely utilisation of the individual products which would, for example, allow reserve to be weighted towards winter evenings or summer afternoons for 'energy' purposes while retaining some weighting towards remaining periods reflecting the general 'system' or insurance nature of the reserve product. If the historical utilisation data is to be used, it should reflect the individual service characteristics (e.g. 20-minute reserve) which would enable different reserve services to be reflected into cashout.	Not stated.
4. Do you agree that it is appropriate to place the weighting factor calculation methodology in the BSAD Methodology Statement, and publish the updated weighting factors on National Grid's industry information website?	Yes. As long as the exact location of the information is clearly indicated in the BSAD methodology Statement.	Yes. We support the creation of robust approach for publication of the STOR weighting factors.	Not stated.
5. Do you have any other comments to make?	<ul style="list-style-type: none"> Not clear that the proposed removal of the entry for reserve cost and volume data in Table 2 of the Procurement Guidelines will be published in the same manner as presently provided for under this table. National Grid to confirm that the 	<p>Proposed changes to BSAD Methodology Statement, Part D:</p> <ul style="list-style-type: none"> In item (e), text refers to item (e) rather than item (d). The process in item f(ii) is entirely at National Grid's discretion; item (g) only refers to STOR volumes and not to the volume delivered by other balancing services. Frequency of updates should be fixed, and the timing of such updates 	Not stated.

Question	E.On	RWE	Edf
	quality and timeliness of the publication of contracted reserve volume and cost data will not deteriorate as a result of this change.	should be well in advance of the relevant seasons.	
General comments	Generally supportive of the proposed changes.	<ul style="list-style-type: none"> • The move from a 120-minute response to a 240-minute response runs the risk of removing capacity from the short-term market, which would otherwise be available to the parties to balance their positions ahead of gate closure. • Introduction of STOR represents an opportunity for a more fundamental review of the BPA which should be based on forward-looking weighting factors reflecting prospective reserve requirement (similar to BM Start Up service). • Specific concern over the use of historic weighting factors as a proxy for the prospective use of STOR; analysis showing the correlation between historic weighting factors and actual/prospective use of STOR should be presented. 	<p><u>STOR service</u></p> <ul style="list-style-type: none"> • Supportive of incorporation of STOR service as it enhances competition through increased response time from 20 minutes to 240 minutes. <p><u>STOR weighting factors</u></p> <ul style="list-style-type: none"> • Supportive of more cost-reflective BPA but concerned about National Grid's discretion to amend the weighting factors. • Section 2(a)(i) in Part D of the BSAD Methodology Statement should state that the seasons should only be updated to reflect changes in the STOR contract. • Section 2(e) should refer to item (d) and not item (e). • In section 2f(i), the volumetric data outside the window should not be set to zero and should be reflected in the weighting factors. • Section 2f(ii) is not needed. • Any changes to the availability windows should be made at the time of STOR contract tenders and should be at least 6 months prior to the changes to the weighting factors. • NGET should notify parties directly of any changes to the weighting factors. • NGET has not provided any analysis using multiple years' historical data.

The issues raised by the respondents can be broadly categorised as follows:

- STOR service
- Appropriateness of historical reserve utilisation data from a single year
- Calculation of the weighting factors
- Timing and frequency of weighting factor updates
- Publication of weighting factors

National Grid's views on the issues raised by the respondents are provided below:

STOR service

National Grid believes that the 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 are intended to increase the flexibility of the service (e.g. an increased response time from 20 minutes to 240 minutes and more frequent tender rounds). National Grid believes that these improvements should reduce risks to service providers, encourage new service providers (particularly from the demand side) and therefore promote greater competition in the provision of the service.

The market participants have complete commercial freedom to either make the reserve capacity available via the STOR service or to retain it for balancing their own positions ahead of gate closure. National Grid considers that it is up to the market participants to assess such risks but believes that the STOR developments will reduce risks to the service providers through greater certainty of income over longer timescales, and that this could potentially benefit a larger number of service providers.

Appropriateness of historical reserve utilisation data from a single year

National Grid believes 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.

Nevertheless, in light of a comment by one market participant, National Grid has recalculated the weighting factors using the most recent reserve utilisation data from the last two years. These weighting factors are plotted in Appendix 2 for both the Working Days and the Non Working Days in each of the six seasons. The current and the proposed weighting factors (using the most recent data from a single year) are also shown for comparison with the factors using two years' data.

All the charts show that the weighting factors using one year's historical data are similar to the weighting factors using two years' historical data. It may therefore be concluded that the use of the most recent historical data from a single is appropriate for the derivation of the weighting factors.

A key benefit of using the most recent historical data from a single year is 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. National Grid therefore concludes that a single year's historical data is most appropriate for calculating the weighting factors, as proposed in the consultation.

One market participant commented that the weighting factors should be derived using a forward looking assessment of the likely reserve utilisation of individual reserve services. National Grid considers that the changes proposed here are intended to be incremental in nature, with the aim of implementation in a short timescale (i.e. on 1 April 2007). National Grid believes that a forward looking approach would be a fundamental change which would require wider industry participation and discussion for the development of any forward looking solution. In National Grid's view, a more appropriate forum in which to consider such a fundamental change would be the forthcoming Cashout Review sponsored by Ofgem.

Calculation of the weighting factors

National Grid has proposed to introduce a transparent methodology for calculating the weighting factors in the BSAD Methodology Statement. 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. The proposed approach also ensures that any changes to the calculation methodology will be consulted with the industry.

A key aspect of the proposed calculation methodology is that it allocates 100% of the daily STOR option fees within the availability windows i.e. to periods of likely STOR utilisation. The resulting BPA (Buy Price Price Adjustment) provides appropriate pricing signals to the market during periods of likely STOR utilisation. National Grid does not believe that it is appropriate to allocate some of the STOR option fees to periods which fall outside the availability windows, as this would adversely affect the pricing signals and would result in less than 100% of the daily STOR option fees being allocated to the periods of likely STOR utilisation.

Timing and frequency of weighting factor updates

The timing of weighting factor updates depends on the availability of the most recent historical reserve utilisation data and the timing of identification of the availability windows. The availability windows for the following year (1 April – 31 March) are typically identified during October-December in the current year and hence the earliest time for calculating any weighting factors is after December in the current year. National Grid is therefore proposing to determine the weighting factors in two stages:

- Prior to April in the following year (say in February in the current year), use the historical utilisation data for the period April – September in the current year to calculate the weighting factors that will apply to the period April – September in the following year.
- Prior to September in the following year, (say in July in the following year), use the historical utilisation data for the period September - March in the current year to calculate the weighting factors that will apply to the period April – September in the following year.

The above approach ensures that the relevant weighting factors are derived from the most recent utilisation of reserve, and that these weighting factors are available at least one month in advance of the period to which they will apply.

National Grid does not intend to update the weighting factors frequently. The above approach implies that the weighting factors for a given day type (Working Day and Non Working Day) in each season will only be updated once in a year.

Publication of weighting factors

National Grid has proposed in the BSAD Methodology Statement that the weighting factors will be published on its industry information website (<http://www.nationalgrid.com/uk/Electricity/Balancing/>) and that these weighting factors will be published at least one month in advance of the relevant seasons to which the weighting factors apply.

National Grid believes that the publication of the weighting factor updates on its website will provide transparency for the market. Since these weighting factors will be published well in advance of the relevant seasons, National Grid believes that this will provide the market with sufficient notice regarding any changes to the weighting factors. National Grid does not consider that it is also necessary to notify the market participants directly of such changes.

Other Comments

In Table 2 of the Procurement Guidelines, the proposed STOR-related changes show the type of volumetric and pricing information that will be available from the STOR tender rounds. National Grid considers that the Procurement Guidelines is not the appropriate statement for provision of BSAD-related information (in any case, such information is already provided under the BSAD Methodology Statement). Consequently, the BSAD-related entry in Table 2 of the Procurement Guidelines has been removed.

Post consultation changes

A typographical error has been identified in the proposed changes to section 2(e) of Part D of the BSAD Methodology Statement. The text in section 2(e) has been corrected and now refers to item (d) rather than item (e).

There are no other post consultation changes to any of the C16 Statements.

Summary and Recommendation to the Authority

National Grid proposes to:

- a) Change references to Standing Reserve and Supplemental Standing Reserve to “Short Term Operating Reserve” and reflect the new service arrangements in the relevant C16 statements.

- b) Periodically update the weighting factors using an agreed calculation methodology (outlined in BSAD Methodology Statement) and publish them 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.

Following the consultation, National Grid recommends that the Authority approves the versions of the C16 statements in the following appendices:

- Appendix A Change-marked version of the Procurement Guidelines**
- Appendix B Change-marked version of the Balancing Principles Statement**
- Appendix D Change-marked version of the Applicable Balancing Services Volume Data Methodology Statement**
- Appendix E Change-marked version of the Balancing Services Adjustment Data Methodology Statement for STOR service and STOR weighting factors**

If the Authority does not approve the proposed changes in Appendix E, National Grid recommends that the Authority approves the versions of the C16 statements in the following appendices (appendices A, B and D remain unchanged):

- Appendix A Change-marked version of the Procurement Guidelines**
- Appendix B Change-marked version of the Balancing Principles Statement**
- Appendix C Change-marked version of the Balancing Services Adjustment Data Methodology Statement for STOR service**
- Appendix D Change-marked version of the Applicable Balancing Services Volume Data Methodology Statement**

Subject to the approval by the Authority, the proposed changes will become effective from 1 April 2007.

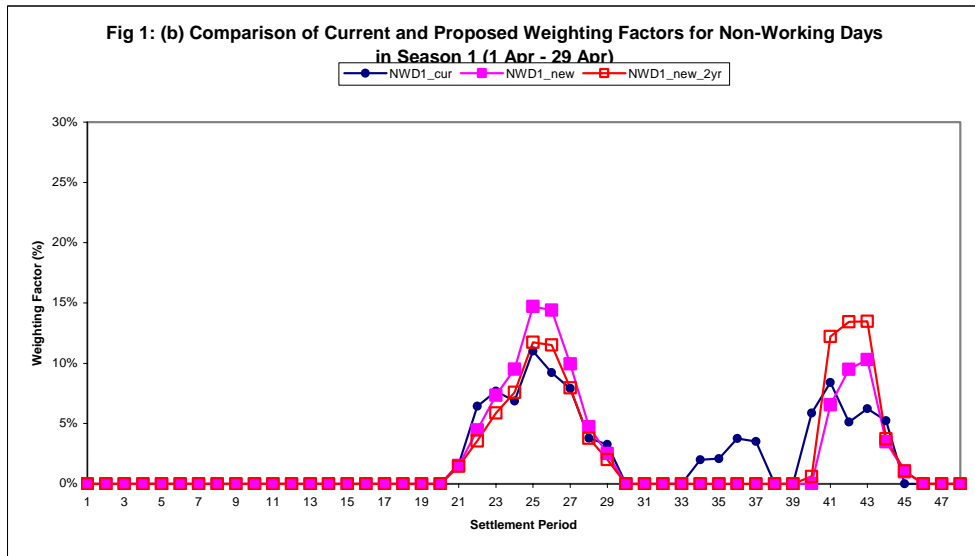
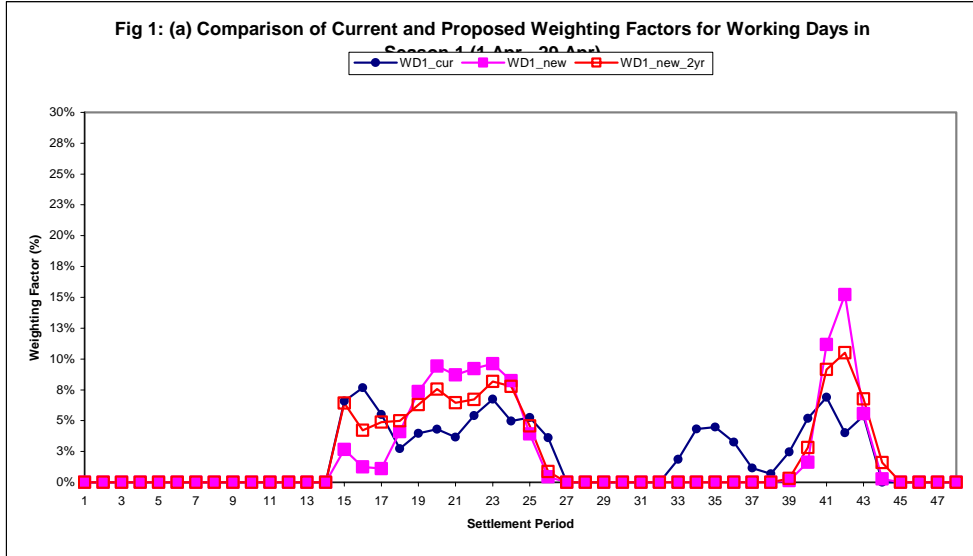
Appendix 1

Consultation on the Proposed Revisions to the BSAD Methodology Statement

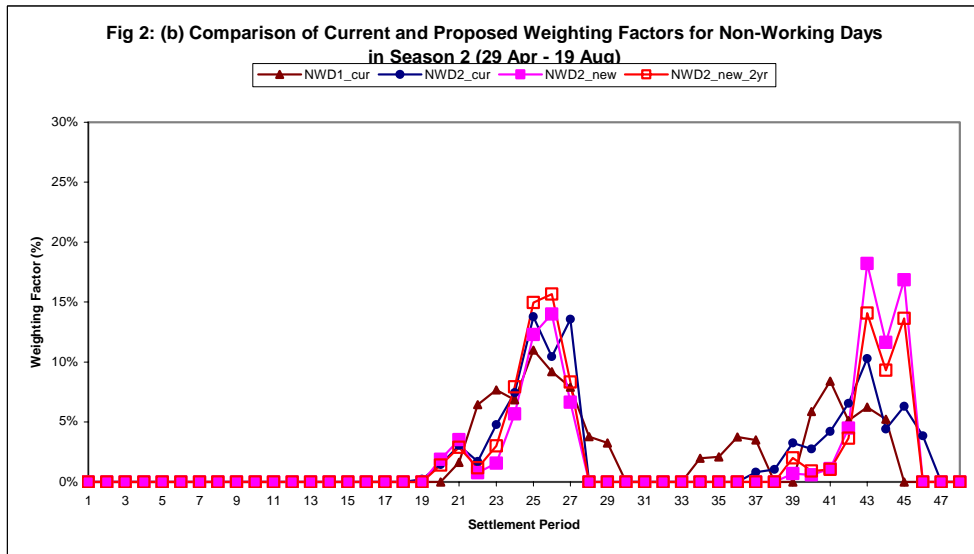
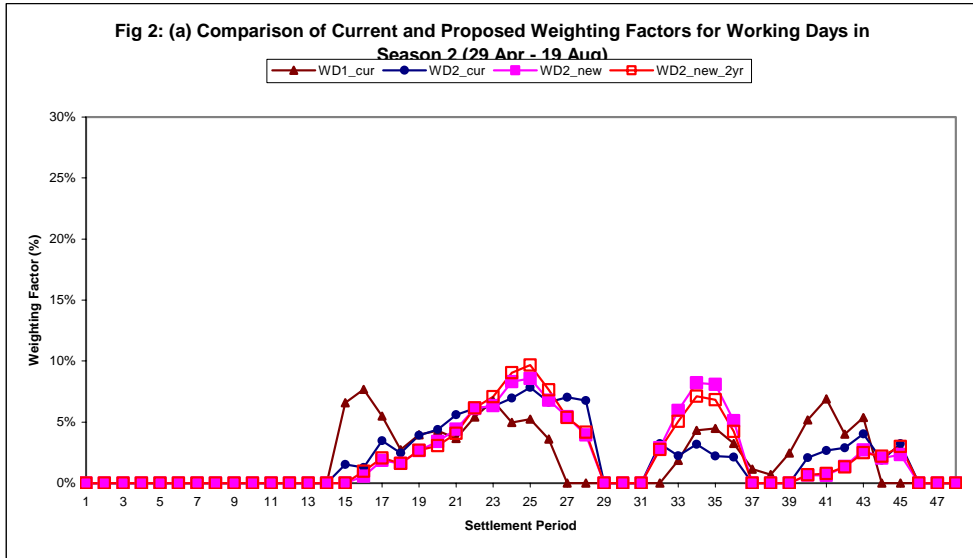
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APPENDIX 2

Comparison of Current and Proposed Weighting Factors for Season 1, including the effect of 2 year historical data

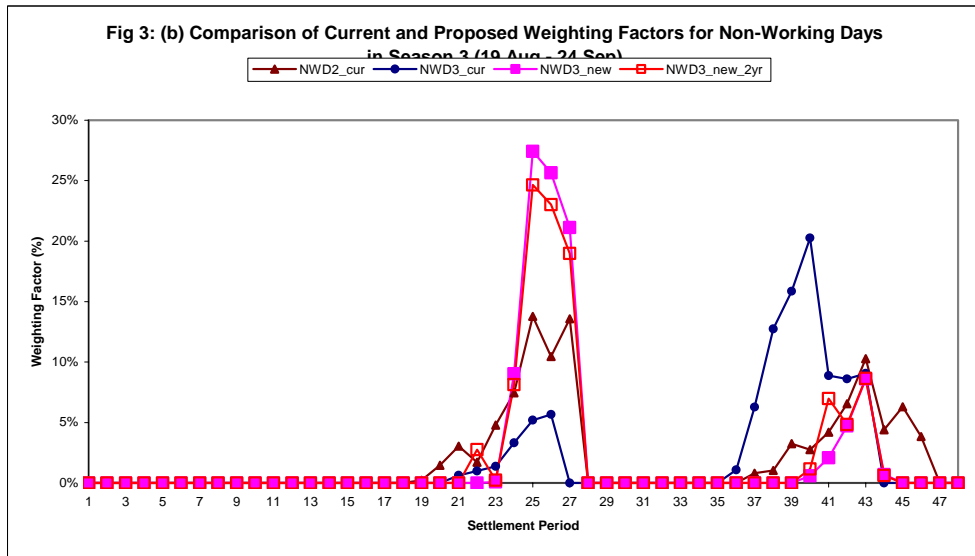
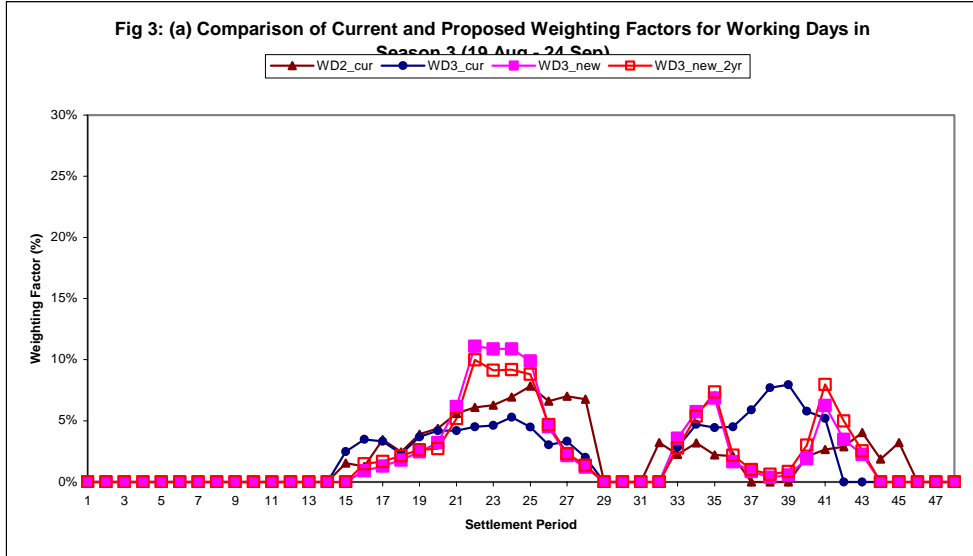


APPENDIX 2 (cont.)
Comparison of Current and Proposed Weighting Factors for Season 2,
including the effect of 2 year historical data



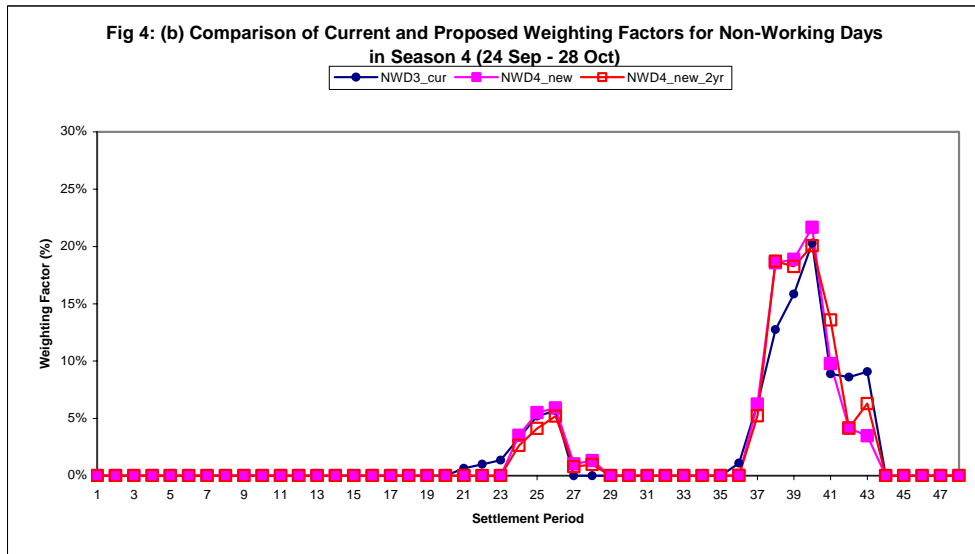
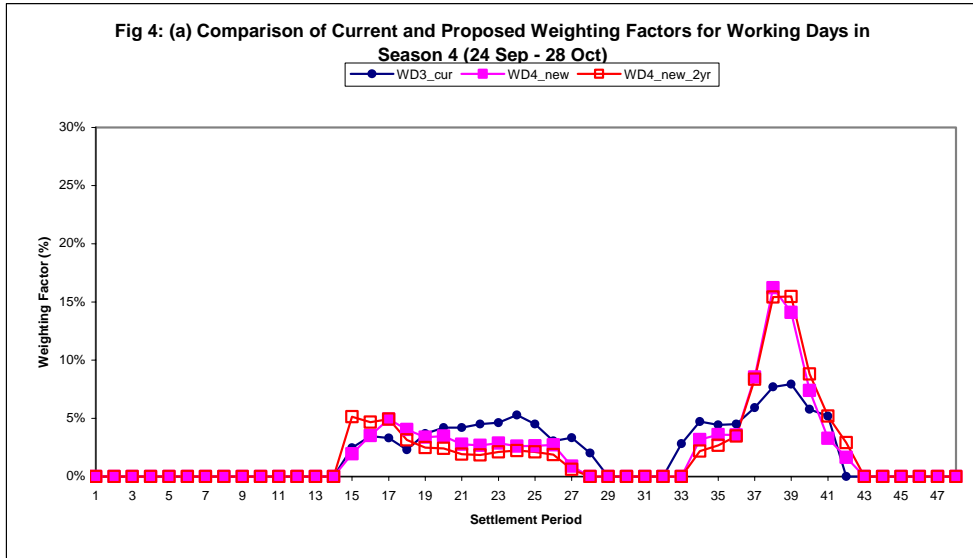
Note: Two profiles for the current weighting factors are shown as two current seasons (1 Apr - 5 Jun and 5 Jun - 4 Sep) span the period 29 Apr - 19 Aug

APPENDIX 2 (cont.)
Comparison of Current and Proposed Weighting Factors for Season 3,
including the effect of 2 year historical data



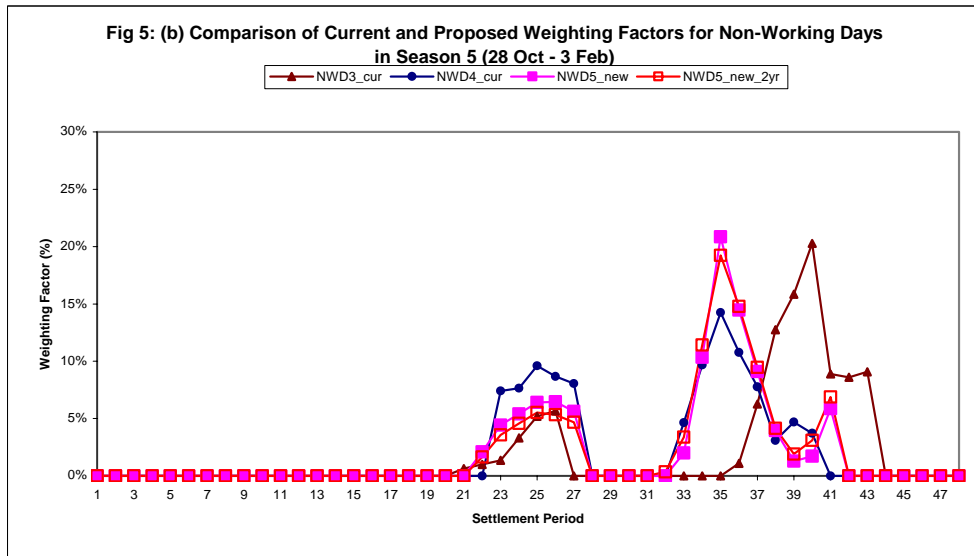
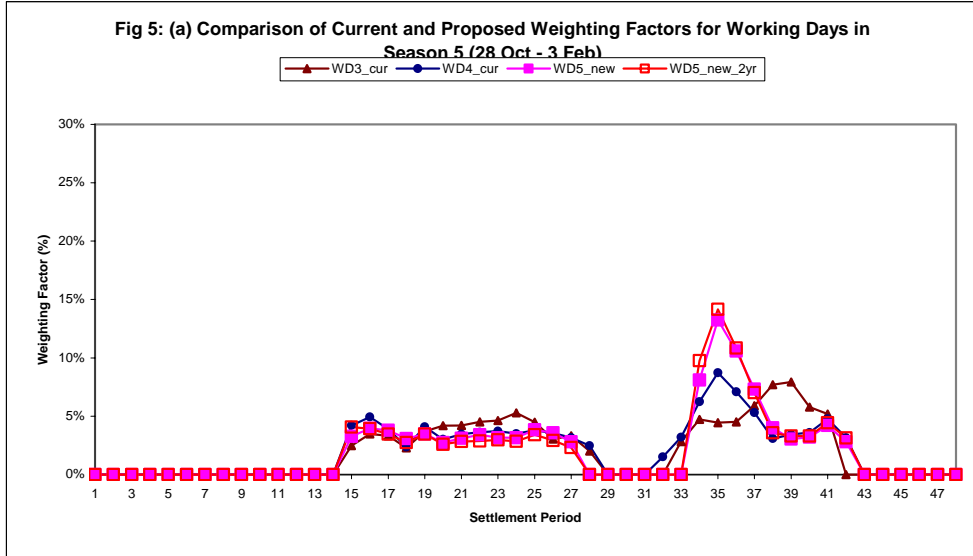
Note: Two profiles for the current weighting factors are shown as two current seasons (5 Jun - 4 Sep and 4 Sep - 29 Oct) span the period 29 Apr - 19 Aug

APPENDIX 2 (cont.)
Comparison of Current and Proposed Weighting Factors for Season 4,
including the effect of 2 year historical data



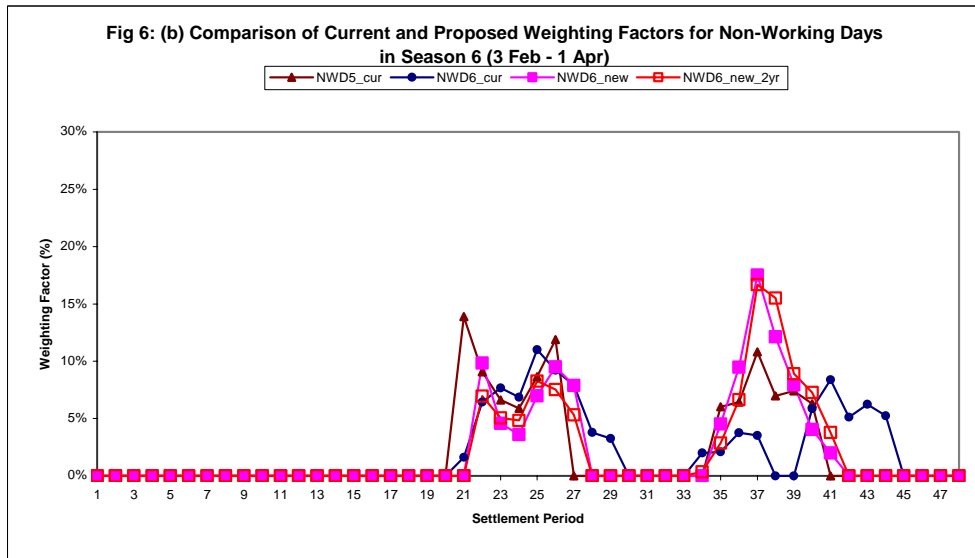
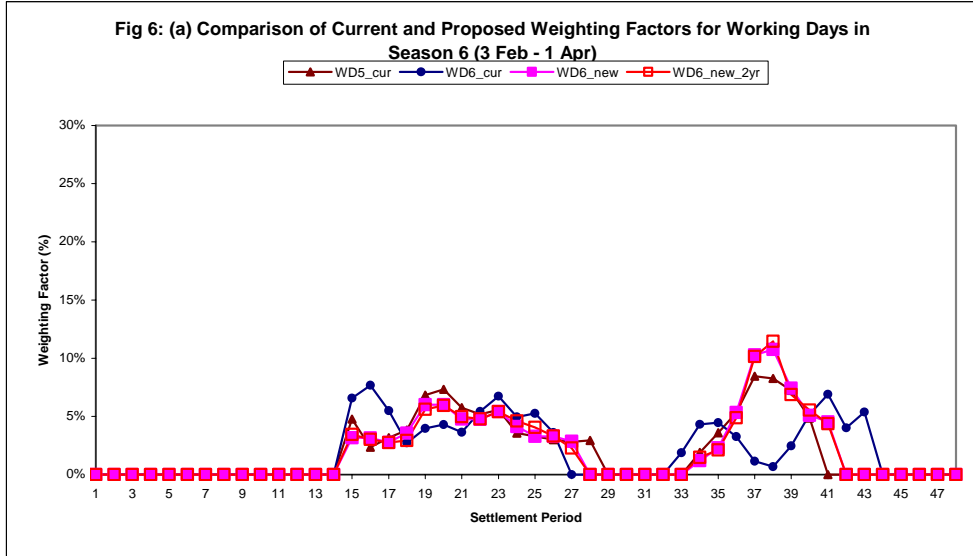
Note: The new season 4 (24 Sep - 8 Oct) falls within the current season 3 (4 Sep - 29 Oct) and hence the weighting factor profiles for the new season 4 are compared with the current season 3

APPENDIX 2 (cont.)
Comparison of Current and Proposed Weighting Factors for Season 5,
including the effect of 2 year historical data



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 2 (cont.)
Comparison of Current and Proposed Weighting Factors for Season 6,
including the effect of 2 year historical data



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

Appendix A

**Change marked version of the Procurement Guidelines with all
amendments highlighted**

[Please see separate document]

Appendix B

Change marked version of the Balancing Principles Statement with all amendments highlighted

[Please see separate document]

Appendix C

Change marked version of the BSAD Methodology Statement with all amendments for STOR service highlighted

[Please see separate document]

Appendix D

**Change marked version of the Applicable Balancing Services Volume Data
Methodology Statement with all amendments highlighted**

[Please see separate document]

Appendix E

Change marked version of the BSAD Methodology Statement with all amendments for STOR service and STOR weighting factors highlighted

[Please see separate document]

Appendix F

Copies of the Responses Received to the Consultation

[Please see separate document]