

Industry Consultation on *Constraint Information Transparency*

5 November 2010

Responses requested by 5 December 2010

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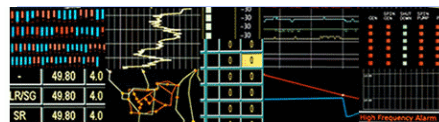
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1 Executive Summary

In 2009, the constraint costs and possible measures to reduce these costs were extensively discussed by the industry. The potential measures were discussed under a number of National Grid initiatives (e.g. locational BSUoS, enhancing TO/SO incentives and CUSC proposal CAP170) aimed at reducing the constraint costs.

Recently, National Grid has set up an industry working group (Commercial Balancing Services Group) to initially discuss transparency of constraint-related information and the development of constraint management services, with a view to publishing more detailed information.

The material presented in this consultation document has been developed by the CBSG over the period April-September 2010, and covers discussions on a range of constraint-related topics, including improvements to the existing market information and provision of additional ex-ante and ex-post information. Specific areas developed by the CBSG are:

- Alignment of BMRS zones with OC2 zones;
- Generator outage / generator availability information from TOGA system;
- Information showing potential constraint boundaries;
- Ex-post constraint cost allocation
- More granular information on constraint management tenders;
- Governance on disclosure of constraint-related information.

This consultation seeks industry views on the above areas. Feedback from the industry will be used to identify areas that could be further progressed with a view to providing improved constraint-related information to the market.

Responses to this consultation should be sent to balancingservices@uk.ngrid.com by 5pm on 5 December 2010.



2 Introduction

This section provides a background to the consultation and outlines the main purpose of the consultation.

2.1 Background

In 2009, the constraint costs and possible measures to reduce these costs were extensively discussed by the industry. The potential measures were discussed under a number of National Grid initiatives (e.g. locational BSUoS, enhancing TO/SO incentives and CUSC proposal CAP170) aimed at reducing the constraint costs.

Recently, National Grid has set up an industry working group (Commercial Balancing Services Group) to initially discuss transparency of constraint-related information and the development of constraint management services, with a view to publishing more detailed information¹.

The material presented in this consultation document has been developed by the CBSG over the period April-September 2010, and covers discussions on a range of constraint-related topics, including improvements to the existing market information and provision of additional ex-ante and ex-post information.

2.2 Purpose of Consultation

The main driver for this work is the constraint costs. The constraint costs (including intertrip costs) have risen significantly from 2005-06 (£84m) to

¹ The CBSG provides a platform for the industry to discuss any aspect of the balancing services and is open to all interested parties. Although the CBSG does not formally report to a governance panel, it is envisaged that any development work by the CBSG will be shared with the wider industry through the existing communication channels (e.g. Operational Forum). The CBSG terms of reference, minutes of meetings and other related information can be found on

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



2008-09 (£263m)² before reducing to £139 in 2009/10; the current forecast for 2010-11 costs is £205m. The 'connect and manage' regime is likely to result in further increases to constraint costs until wider reinforcements are complete.

Some members of the CBSG consider that information transparency may help reduce these costs through increased competition in areas where available actions are priced away from the marginal price of energy at that time. However, other members of the CBSG consider that prices in a constrained market would typically be expected to be higher than in an unconstrained one, and that greater transparency of ex-ante information relating to constraints could thus result in an increase in constraint costs.

The CBSG further considers that constraint-related information will become increasingly sensitive under 'connect and manage' when the incidents of constraints, and their impact on cash-out, could increase.

Some members of the CBSG have emphasised the need for easy access to the data (i.e. in a format and on a system that is easily accessible) by all parties, including power traders, so that there is no distortion to competition.

The CBSG notes that quantifying any cost savings from increased information transparency may not be straightforward³ and there may in fact be drawbacks of increased transparency (e.g. exploitation of such information). Such drawbacks will need to be carefully considered in the provision of constraint-related information.

Some CBSG members consider that transparency of information should make any abuse of market position clear by providing clarity of system status which can be compared to unit despatch or pricing decisions. However, other members consider that, whilst this might be the case, market operation in a constrained environment might not necessarily be considered to be abuse and, as a result, information transparency is likely to result in an increase in constraint costs that would be unchecked.

² <http://www.nationalgrid.com/NR/rdonlyres/1B6B81A0-7583-4EC0-B16D-A814E2100546/38603/ElectricitySOIncentivesHistoricForecastCosts.pdf>

³ Other information transparency work (e.g. BSC proposals P219, P220, P243 and P244) has shown that it is not easy to quantify cost savings from improved information transparency.



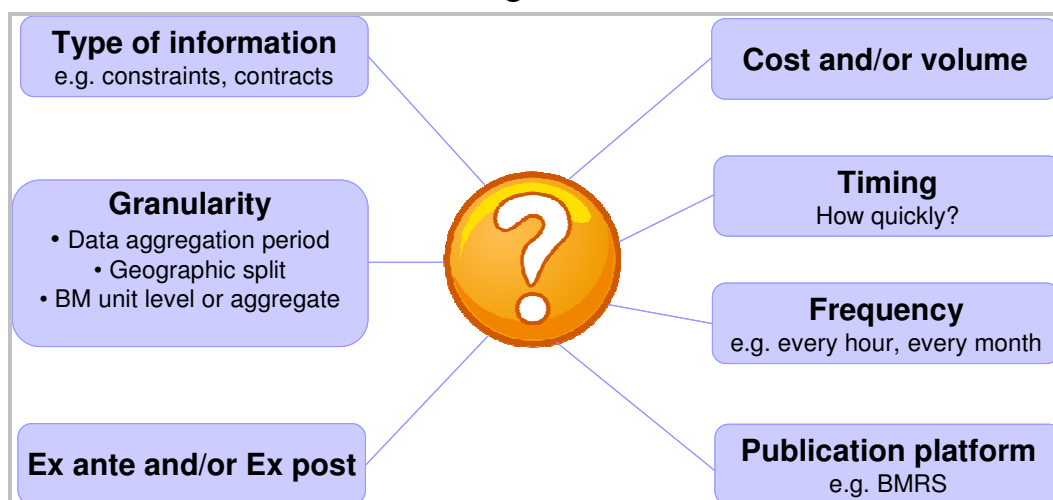
This consultation document therefore focuses on improving transparency of constraint-related market information with a view to establishing whether such information will result in a reduction of overall constraint costs, and how this will be achieved.

3 Scope of Consultation

This section outlines areas covered by the consultation.

The CBSG discussed a wide range of areas associated with constraint-related information which are covered in this consultation. These areas range from the type of information (e.g. constraint costs, constraint contracts, surplus generation) to information granularity (e.g. geographic split) and timing and frequency of publication of information. A more complete list of discussion areas within the scope of this consultation is shown in **Figure 1**.

Figure 1



The scope of the consultation is limited to the National Electricity Transmission System (NETS) and the NETS market rules; however, a specific element of the European 3rd Energy Package relevant to this consultation (i.e. information transparency guidelines) is briefly discussed in section 5.7. With more interconnectors connecting to the NETS, the constraint costs could be affected by interconnector flows; however, such areas are outside the scope of this consultation (but could be considered by the CBSG at a later stage).



4 Existing Constraint-related Information

This section provides details of the constraint-related information that is currently available to the market, and outlines areas that could be improved.

4.1 Constraint-related Information Currently Available to the Market

The CBSG reviewed the constraint-related information that is currently available to the market. The main sources of this information and examples of the type of information available from these sources are given below:

- Procurement Guidelines (PG) report⁴: This report is produced annually and provides monthly costs and volumes of balancing services procured during the previous year.
- Monthly Balancing Services Summary (MBSS)⁵: This report forms the basis for PG report and is produced every month.
- Balancing Services Incentive Scheme (BSIS) consultation⁶: BSIS consultation is carried out annually, and provides both ex-ante and ex-post information on annual balancing costs (including constraints costs).
- Operational Forums. These contain an update on the main areas of expenditure which will highlight any significant variances between forecast and outturn costs.
- TOGA (Transmission Outage Generation Availability) system that allows system users to exchange generator availability and generator outage information in accordance with Grid Code section OC2.⁷
- Constraint management services (e.g. information on bilateral agreements and tenders).
- Balancing Mechanism Reporting Service (BMRS)⁸: This web-based service provides ex-ante (e.g. forecast demand and margin) and ex-post (e.g. P217

⁴ Available on <http://www.nationalgrid.com/uk/Electricity/Balancing/transmissionlicensestatements/>

⁵ Available on <http://www.nationalgrid.com/uk/Electricity/Balancing/Summary/>

⁶ Available on <http://www.nationalgrid.com/uk/Electricity/soincentives/>

⁷ At present, a TOGA user can see its own generation availability (a single daily and/or weekly value) and the zonal generation availability for any zone; following implementation of P243 on 4 November 2010, generation availability of individual BMUs will be available on the BMRS. However, information on individual generator outages (with start / end times and dates) will continue to be only available to that generator.



constraint flagging, outturn demand) operational information (as well as pricing information) for a range of timescales, including real-time information.

As can be seen, the above sources provide a wide variety of constraint-related information (e.g. constraint costs, forward generation availability and surplus generation). The information is available in a range of timescales from 5 years ahead to real-time and has varying levels of granularity (e.g. monthly aggregate costs, actual generation at 5-minute intervals, geographic breakdown of costs and volumes). **Appendix 1** provides a high level summary of the constraint-related information that is currently available to the market.

4.2 Improvement Areas for the Existing Constraint-related Information

Appendix 1 shows that there is a vast amount of information available to the market. Following a review of this information in Appendix 1 by the working group and wider discussions on constraint-related information, the working group observed a number of issues with the existing information in this area:

- i) Different sources provide information on the same areas at differing levels of granularity and consider different time frames. As such, it is not easy to compare information to form a coherent view.
- ii) Short term (day ahead) and longer term (year ahead) zonal operational information is provided in 5 BMRS and 8 OC2⁹ zones respectively; this makes it difficult to compare short term and longer term operational information.
- iii) The TOGA generator outage information relevant to a party is only visible to that party although the zonal generation availability information is available to all TOGA users (some of the latter information such as zonal Output Usable is also available to the wider market via Elexon's website)¹⁰

⁸ Available on www.bmreports.com

⁹ Grid Code Operating Code 2

¹⁰ Zonal and national Output Usable data is available on <http://www.elexon.co.uk/marketdata/bmu/oud.aspx>. Following implementation of BSC modification P243 on 4 November 2010, the Output Usable data will be available at BM Unit level.



- iv) Whilst the market has access to forecast generation demand and margin (up to one year ahead of real time) to a zonal resolution, the best information on forecast constraints requires rigorous assessment of system security by National Grid's well trained and skilled power system engineers. The results of this assessment are not currently available to the market and require significant knowledge of the transmission system, and the impact of individual BMUs, to interpret accurately.
- v) Some sources mainly provide information on costs (e.g. MBSS and BSIS) whilst others (e.g. BMRS) focus on volumetric data. Where cost information is available, the details of how this information is broken down are not always provided; for example, the methodology behind calculation of constraint costs is only available at a high level and does not give details of the actual calculations.
- vi) National Grid has made some information available (e.g. constraint management tenders) but is unable to disclose all information because of confidentiality restrictions. Currently, there is no appropriate governance permitting National Grid to publish this data without running the risk of breaching contractual restrictions or other legal rules governing the disclosure of such information.

The lack of clarity and potential to derive further value from the existing information led to the working group discussions on the possible areas where further constraint-related information could be made available to the market. These areas are discussed in section 5.

5 Additional Constraint-related Information that could be Made Available

This section provides details of the additional constraint-related information that, subject to certain safeguards, could be made available to the market.

The specific areas covered are:

- *Alignment of BMRS zones with OC2 zones;*
- *Generator outage / generator availability information from TOGA system;*
- *Information showing potential constraint boundaries;*
- *Ex-post constraint cost allocation*
- *More granular information on constraint management tenders;*
- *Governance on disclosure of constraint-related information.*



5.1 Alignment of BMRS Zones with OC2 Zones

5.1.1 Background

Operational information such as forecast generation, demand and margin is provided at both national and zonal level. The short term (day ahead) zonal information is provided for 5 BMRS zones whilst the longer term information (2 days ahead to 5 years ahead) is provided for 8 OC2 zones.

Since NETA go-live, neither set of zones has changed (except for inclusion of Scotland at BETTA go-live in 2005). At BETTA go-live, Scotland was included as the eighth OC2 zone whilst the number of BMRS zones remained unchanged as an existing BMRS zone was amended to include Scotland.

The OC2 and BMRS zones have been constructed in such a way that each zone has sufficient number of parties (at least three) to maintain confidentiality. The number of parties (as at 29 September 2010) in each OC2 and BMRS zone is shown in **Tables 1** and **2** respectively; details of individual parties, along with geographic maps showing the OC2 and BMRS Zones can be found in **Appendices 2** and **3**.

Table 1

Number of Parties in Each OC2 Zone

OC2 Zone	No of Parties
a	14
b	23
c	3
d	24
e	12
f	4
g	7
s	11
'no zone'	12*

* These parties do not fall under any existing zones.

Table 2

Number of Parties in Each BMRS Zone

BMRS Zone	No of Parties
A	19
B	16



BMRS Zone	No of Parties
C	10
D	49
E	16

The CBSG noted that, following implementation of BSC modification P243¹¹ on 4 November 2010, some of the operational information (i.e. Output Usable) will be published at a BMU level thus revealing identity of individual parties.

5.1.2 Alignment of OC2 / BMRS zonal information

Given the different number of BMRS and OC2 zones for the provision of short term and longer term information respectively, there is currently a discontinuity between short term and longer term zonal information. This discontinuity makes it difficult to compare short term and longer term information. This would be further exacerbated by a move to publish very short term information such as the results of transmission planning studies which use a large number of smaller constraint groups (section 5.3), largely distinct from either BMRS or OC2 zones.

Increasing the number of BMRS zones to 8 will align the BMRS and OC2 zones. This would provide consistency between short term and longer term zonal information, addressing one of the concerns raised by the CBSG. This would also increase the granularity of information provided via the BMRS zones.

National Grid proposed this change in 2005¹² as part of a package of proposals for improving the electricity market information. This proposal was not progressed for a number of reasons including unacceptable costs of changes to Elexon's IT systems¹³ and a lack of justification with regard to market benefits.

¹¹ BSC modification P243: Publication of generator forward availability by fuel type (The Authority approved the Alternative proposal, as recommended by the BSC Panel, to publish Output Usable at BMU level).

¹² BSC standing issue 17: Review of Electricity Market Information, 4 May 2005.

¹³ In 2005, the IT costs were estimated at £260k with 27 weeks lead time (for increasing the number of BMRS zones to 8, with additional flexibility to further increase the number by up to 3 zones). Following appointment of a new services provider, Elexon's revised cost and time estimates (as at 24 August



A more fundamental question is whether the current number of OC2 and/or BMRS zones is appropriate. These zones have changed very little since NETA go-live, with no changes since BETTA go-live. A review of these zones may reveal if they are still appropriate.

Consultation Question 1

Do you find the BMRS zonal information beneficial?

- (i) If yes, please provide rationale, including any qualitative and/or quantitative benefits.*
- (ii) If no, please state whether the BMRS zonal information could be removed to improve efficiency of information provision.*

Consultation Question 2

Do you think that there would be benefit in aligning the BMRS zones with OC2 zones? Please state what benefits you would derive from this improvement.

Consultation Question 3

Do you think that the current OC2 and BMRS zones should be reviewed to assess their appropriateness? Please provide rationale.

5.1.3 Alignment with Study Zones in Seven Year Statement¹⁴

A further refinement that could improve the granularity of existing zonal information is to increase the number of OC2 and/or BMRS zones. The CBSG considered that the 17 study zones in the seven year statement (SYS) could be used as the basis for this. The advantage of aligning the OC2/BMRS zones with the SYS study zones is that the zonal information across investment and operational timescales would be consistent and hence more useful. However, the CBSG noted that the increased granularity may lead to confidentiality issues if a particular zone had less than three parties present.

Table 1 below shows the existing SYS zones covering the NETS and the relevant transmission licensees.

2010) are £110k (service provider cost = £76k and Elexon's operational costs = £35k) and 20 weeks respectively.

¹⁴ <http://www.nationalgrid.com/uk/Electricity/SYS/current/>



Table 1
SYS Study Zones (from Table 6.2 of SYS)

Zone Number	Zone Name	Licensee
Z1	North West (SHETL)	SHETL
Z2	North (SHETL)	SHETL
Z3	Sloy (SHETL)	SHETL
Z4	South (SHETL)	SHETL
Z5	North (SPT)	SPT
Z6	South (SPT)	SPT
Z7	North & NE England	NGET
Z8	Yorkshire	NGET
Z9	NW England & N Wales	NGET
Z10	Trent	NGET
Z11	Midlands	NGET
Z12	Anglia & Bucks	NGET
Z13	S Wales & Central England	NGET
Z14	London	NGET
Z15	Thames Estuary	NGET
Z16	Central S Coast	NGET
Z17	South West England	NGET

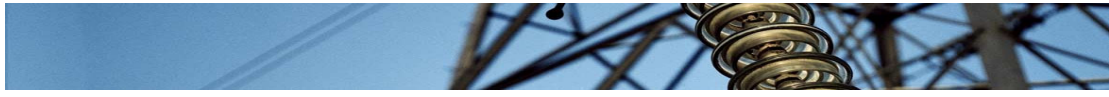
Consultation Question 4

Do you think that there would be benefit in aligning the OC2/BMRS zones with the Seven Year Statement study zones? Please state what benefits you would derive from this improvement.

5.1.4 Constraint Information in 'Connection and Investment' Timescales

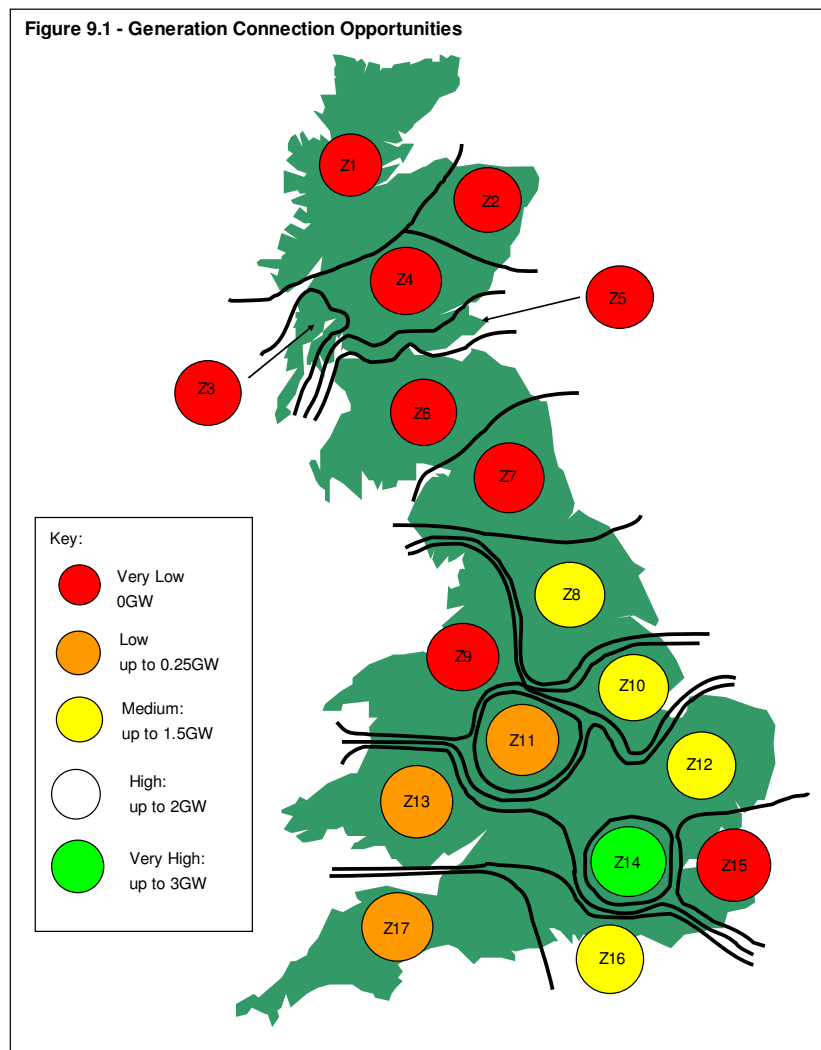
The 17 SYS zones outlined in section 5.1.3 have 17 associated constraint boundaries which, amongst other things, are used in determining the need or otherwise for transmission system reinforcement. The boundary capability for transfer of power flows is based on a set generation and demand background which have uncertainty associated with them (particularly the future generation developments where not all generation may proceed to completion). Nevertheless, these boundaries may enable interested parties to make more informed judgements on the opportunities (e.g. the location of a new generating station) for making new or further use of the transmission system.

Notwithstanding the above uncertainty, SYS provides an indication of opportunities for the connection of new generation to a compliant network.



These opportunities can be interpreted as the ability to connect new generation without an associated need for major transmission reinforcement. Figure 2 (reproduced from SYS, Figure 9.1) shows the varying levels of generations opportunities across the 17 geographical zones; the opportunity groups range from 'very low' (0GW) to very high (up to 3GW).

Figure 2
Opportunities for Generation Connections
(reproduced from SYS, Figure 9.1)



The above discussion shows that there may be sufficient information in the SYS to meet market needs regarding opportunities for generation connections. However, it would be useful to gain industry views on whether more information in this area is desirable.

Consultation Question 5



Do you think that there is sufficient information on opportunities for generation connection within SYS? If not, please provide details of any additional information needs in this area.

5.2 Generator Outage / Availability Information from TOGA System

TOGA is an IT system that permits Grid Code users to submit and exchange generator outage and availability (i.e. Output Usable) information with National Grid, in accordance with the Grid Code section OC2. The time horizon for this information exchange is 5 years ahead to 2 days ahead.

The **generator outage** information relevant to an individual party (including relevant transmission outages¹⁵) which includes outage start and end times is only visible to that party and National Grid; no party is able to see other parties' TOGA outage information. The CBSG considered that, following implementation of P243 (section 5.1), the outage information about individual plant could be inferred from Output Usable, negating the need for publication of individual outages.

The CBSG discussions focussed on the **generator availability** information in TOGA which consists of a single forecast value at the time of the (daily or weekly) peak demand and other related information such as the zonal margins and potential constraints (for a given generation background). The zonal information is only visible to TOGA system users, although some elements of this information such as zonal Output Usable are also visible to the wider via Elexon's website¹⁶.

Market participants with access to TOGA can run reports for a range of time horizons to meet their information needs.

An example of the kind of generator availability information available from the TOGA system is shown in **Appendix 2**.

¹⁵ Section 5.2 focuses on generator data; the transmission outage information is considered in section 5.7 as part of potential transparency requirements under the European 3rd package.

¹⁶ <http://www.elexon.co.uk/marketdata/bmu/oud.aspx>



The CBSG considered the benefits of wider availability of the TOGA information given that:

- The TOGA information (e.g. generator availability derived from Output Usable and zonal surpluses) is similar to the information that is already available via BMRS and Elexon's website;
- Following implementation of P243 which will provide generator availability data at BMU level, the BMRS will provide more granular information than TOGA;
- Any additional information available in TOGA (e.g. that based on boundary limits) may use static data and hence may not be very useful;
- The TOGA information is provided on an operational basis with the main purpose of promoting an understanding of risk.

The CBSG concluded that it may be preferable to focus on the OC2 and BMRS data that is already available (section 5.1) and retain TOGA as an operational tool for data exchange.

Consultation Question 6

*Do you think that there would be benefit in making TOGA **generator outage** information available to all market participants? Please state what benefits you would derive from this information.*

Consultation Question 7

*Do you think that there would be benefit in making TOGA **generator availability** information available to all market participants? Please state what benefits you would derive from this information.*

Comment: Generator Outage Changes

Within the overall objective of reducing constraint costs, National Grid is also considering improvements to the process of aligning generator and transmission outages. This work will be discussed with the industry in the near future.

5.3 Picasso Information Showing Potential Constraint Boundaries



5.3.1 Background

National Grid carries out strategic system analysis (around 7 years ahead) which may lead to proposed network solutions, including investment and/or intertripping schemes. These solutions are developed such that the system remains compliant with the NETS SQSS¹⁷. During the development of network reinforcements, outage requirements are identified to facilitate any construction activities. At the 'year ahead' stage, studies are performed to confirm outage placements and identify major incentive cost risks. These risks are mitigated 'within year' and closer to real-time by considering a range of actions including possible changes to the outages (which is an iterative and fluid process) and contractual arrangements. Depending on system requirements, National Grid may enter into contracts at around 12 months ahead but more typically around 2-6 months ahead.

From around two months ahead, National Grid carries out highly detailed system analysis which takes into account all relevant information available at the time.

This analysis is continuously refined up to real time using the latest generation and demand forecasts as well as anticipated transmission system outages and topology, and the configuration of other users' systems where this impacts on the operation of the transmission system.

Generation forecasts take account of outage information from OC2 submissions, and (at the day ahead stage) the initial physical notifications submitted by market participants.

A major challenge in the analysis is to accommodate frequent short term changes to each of these inputs, including transmission system outages and generator availability.

The outcome of this analysis is a developing view of the likely constraint boundaries and system limitations, in order to produce, at the close of the day ahead stage, a finalised strategy of how best to manage them in a secure, economic and efficient manner.

¹⁷ National Electricity Transmission System Security and Quality of Supply Standards



At the close of the day ahead stage, these likely constraint boundaries are shown on a transmission network diagram known as a 'Picasso'.

The boundary limits are based on assumed plant run and transmission circuit availability and hence vary with plant mix and from day to day. The pictorial part of the Picasso (an example of which is shown for England and Wales in **Appendix 3**) is setup to display anticipated system conditions at the daily plateau. It should be noted that this diagram is only part of the detailed Picasso information; a significant amount of additional information accompanies this diagram and is needed, along with an appropriate level of transmission system knowledge, to interpret the diagram. The additional information includes, for each constraint boundary:

- Details of the circuits which are out of service, due to planned system works or long term fault outages, and affect each given constraint boundary
- Details of "critical faults" that the system is being secured against for that boundary
- Type of constraint (e.g. thermal / voltage, import / export)
- Flow limits (before and after applicable post fault actions) (MW) at analysed cardinal points (typically daily peak, plateau and overnight minimum where required)
- Assumed output of relevant generators when the limit was set
- For thermal limits, the nodal effectiveness of relevant generation on the critical overload(s).

5.3.2 Practical issues with publishing Picasso information

As can be seen from the diagram in Appendix 3, the Picasso shows the transmission system boundaries which have been identified as potentially requiring action to be taken to secure the system in line with the NETS SQSS, given the anticipated generation background.

It shows what transmission equipment is out of service, potentially leading to or exacerbating congestion, or if the issue is an intact problem. By highlighting the congested boundaries, it also shares National Grid's view on the running regime of generation in that group. Publication of this would allow any industry party to see what system issues are being experienced and also, National Grid's view of how their generation portfolio will run and that of their competitors. This view is based on specific OC2 data, currently only visible to



National Grid, Initial Physical Notification data, again only visible to NGET, commissioning and testing schedules for new and existing generation, currently only visible to NGET.

The CBSG considered that the day ahead Picasso information could be more useful if it was available a few weeks¹⁸ ahead of real time, giving the market participants more time to respond to any constraint signals. However, National Grid has highlighted several issues with producing day ahead Picasso information a few weeks earlier:

- Production of Picasso information is a resources intensive process managed by highly skilled power system engineers and any additional resource requirements will need to be justified against substantial benefits.
- The day ahead Picasso information takes into account initial physical notifications which are not available a few weeks earlier and hence it would not be possible to produce comparable Picasso information in longer timescales;
- Any analysis (albeit in draft form) leading up to the day ahead Picasso has weekly (rather than daily) resolution.
- The longer term information is based on National Grid's expectation of the plant that is likely to run and there is no guarantee that such plant will run. This, combined with other variables such as interconnector flows and wind generation, may make longer term Picasso information of limited value.
- As previously mentioned, there are also a number of short-term outage changes that are accommodated. As these would not be known in longer timescales the transmission system capability may be quite different to how it appears nearer to real time.

Some CBSG members shared National Grid's concerns and did not see value in publishing the Picasso in its current form, particularly because of complexity of Picasso information and the difficulty that the market participants may experience in interpreting this information.

The CBSG considered that a simpler and more interpretable version of the Picasso information may be sufficient for the market needs e.g. publishing

¹⁸ The CBSG initially explored availability of the day ahead Picasso information a few months ahead of real time but National Grid confirmed that the detailed Picasso analysis only starts at around two months ahead and hence this information is unlikely to be available in the longer timescales.



information on constraints that occur every day (although further clarity on market requirements would be needed before consideration could be given to the development of a simpler version of Picasso). Such information may also mitigate security risks (section 5.3.3). The CBSG also considered that it may be more beneficial to focus on the longer term information (e.g. OC2 / BMRS zonal information, section 5.1) which would allow more time for the market to respond to any constraint signals.

Consultation Question 8

Do you think that making the Picasso information available to the market would reduce the costs of transmission constraints? Please state how you would use this information to help reduce the constraint costs.

Consultation Question 9

Do you think that simpler and easier to interpret Picasso information (e.g. aggregate information for a given constraint group) would meet your information needs? Please provide rationale how best such information could be published.

5.3.3 Risks of publishing Picasso information

There are two main risks associated with publishing the potential constraint boundaries via Picasso:

- a) The information could reveal weak points of the national electricity transmission system, which could lead to security issues (e.g. a terrorist threat).
- b) The information could be utilised by market participants to improve their commercial position, for example by adjusting submitted prices or PN positions to reflect an awareness of a more constrained market, and such actions would lead to an increase in constraint costs. In extreme cases, participants may exploit the constraints, for example by withholding generation that would otherwise have been economic to the wider market with a view of capitalising on the constrained environment.

Some information on system boundaries (albeit in longer timescales than the day ahead Picasso) is already in the public domain. For example, the SYS contains transmission boundaries for SHETL (figure A2.4 in SYS), SPTL (A3.4 in SYS) and NGET (figure A4.4 in SYS) systems, and details the



notional capacity of these boundaries (using methodologies documented in the NETSSQS), assuming an intact transmission system

However, the Picasso information, if published, would more accurately identify the likely constraint boundaries close to real time taking into account more realistic generation and demand data, transmission system outage plan and network topologies.

The market exploitation issue is being addressed by DECC as part of the Energy Act 2010. DECC are due to consult in the near future on the introduction of market power conditions in generation licences to deter the exploitation of market power, to the detriment of consumers, where transmission constraints exist¹⁹. This will provide Ofgem a means to take appropriate enforcement action in such cases.

Dependent on the nature of DECC's consultation, such changes to licence conditions may make it possible to deter clear cases of exploitation, but would not necessarily address more subtle responses to constraint information that could result in increased constraint costs to the detriment of the consumer. However, the CBSG noted that, under new market power conditions, the generators would be under greater scrutiny and would need to be able to justify their actions to avoid financial and reputational damage.

The CBSG discussed the risk of market exploitation and one group member confirmed that the Picasso information could be used to increase commercial advantage over competitors.

Another group member suggested that the Picasso information could increase competition (in the provision of balancing services) and hence could drive down costs in situations where current pricing is not economically reflective of plant characteristics or market conditions, although a further CBSG member considered it unlikely that a constrained market would drive a greater level of competition in this regard than the unconstrained market.

The CBSG discussed the possibility of more than one market (e.g. an energy market and a relatively small constraint markets) and some members suggested that, in constraint markets where there are fewer participants, the outcome of publishing constraint information could be higher prices. However,

¹⁹ DECC are due to consult on market power licence conditions with implementation likely in 2011.



other group members considered that this may not be the case in all circumstances and that, over a longer period, greater transparency may reduce costs.

Given the above risks and lack of support from some CBSG members for publication of Picasso information, a compelling case would be needed to justify the publication of this information.

The CBSG considered that one option that could mitigate the risk of market exploitation whilst still providing transparency for greater scrutiny is the ex-post publication of Picasso information. The resource and cost implications of this option will need to be assessed, should the industry wish to progress this further. The CBSG agreed to seek wider industry views on this.

Consultation Question 10

Do you feel that provision of Picasso information could lead to national security issues? Please provide rationale, including any alternative ways of providing this information to the market which would avoid these concerns.

Consultation Question 11

Do you feel that the release of the Picasso information could result in an increase (or decrease) in constraint costs? Please provide rationale.

Consultation Question 12

Do you feel that there would be benefit in ex-post publication of Picasso information as a way of mitigating risk of market exploitation whilst providing transparency for greater scrutiny? Please provide rationale.

5.4 Ex-post Constraint Cost Allocation

At present, there is limited amount of information published on the methodology for ex-post allocation of constraint costs and the CBSG considers that more information on such a methodology would be useful.



A high level methodology for identifying constraint actions was included in an industry consultation on System Operator Incentives²⁰. This methodology covered details of the monitoring process used for actions taken in both the Balancing Mechanism and ahead of the gate-closure, followed by a post-event review by National Grid staff (e.g. the control room staff and planning and support staff) to ensure accuracy of the process.

During CBSG discussions, National Grid provided further information on the cost allocation methodology including the process of separating energy costs from constraint costs. A key question in this process is '**what actions the System Operator would have taken if the constraint was not active**'. In broad terms, the actions that the System Operator would have taken in absence of active constraint (to resolve net imbalance volume) are **deemed** as the energy actions. A simple numerical example in **Appendix 3** (example 1) shows how the constraint costs are separated from deemed energy costs using the equation:

Constraint costs = volume of action * (accepted price – reference energy price)

A further example (example 2) in Appendix 4 shows how the reference energy price is used to estimate the cost of constraints and the cost of replacement actions required as a consequence of the constraint action.

The above examples demonstrate the principles used in estimating the constraint costs. It should be noted that the actual cost allocation process for multiple actions taken to resolve a range of problems on the transmission system is more complex.

Consultation Question 13

Do you think that there would benefit in making the cost allocation methodology available to the market? Please provide rationale.

Consultation Question 14

If the answer to Q10 is yes, please stated how such a methodology should be governed (e.g. via licence).

²⁰ Appendix A of the consultation "NGET System Operator Incentives for 1 April 2010 - Consultation 3", 9 September 2009, which is available on <http://www.nationalgrid.com/uk/Electricity/soincentives/docs/>



5.5 More Granular Information on Constraint Management Services

The constraint management services (e.g. tenders, bilateral agreements) are designed to manage price risks during constraints. Historically, information such as prices related to individual plant has been considered to be commercially sensitive, and confidentiality clauses in bi-lateral agreements have prevented National Grid from publishing such information. For example, at present National Grid only provides commercial intertrip cost information at a national level.

The CBSG has suggested that National Grid should only enter into agreements that allow it to publish all relevant information (see section 1.6 for implications). Recent experience has shown willingness of some participants to allow publication of their information suggest that the market may already be moving toward greater transparency on constraint management information.

Consultation Question 15

Do you think that there would be benefit in publishing more granular information on constraint management tenders and bilateral agreements. Please state how you would use this information to help reduce the constraint costs.

5.6 Governance on Disclosure of Constraint-related Information

Market participants may provide information (e.g. via constraint management tenders) to National Grid that it is unable to publish. This may be due to specific confidentiality clauses in bi-lateral agreements or there may be wider restrictions in legislation (e.g. section 105 of the Utilities Act 2000 or the Competition Act 1998) that may prevent, or raise risks for it in disclosing such information to the market.

The prohibition in section 105 of the Utilities Act 2000 and the competition law risks for National Grid may be addressed and mitigated by a number of options, including possible changes to:



- Bi-lateral agreements;
- Codes (e.g. BSC);
- Procurement Guidelines produced by National Grid under standard licence condition C16;
- Changes to generation / NGET licences.

The bilateral agreements will require consent on disclosure of information from all service providers. There is a risk that one or more parties may not give consent to publication of their information, preventing publication of all information. Furthermore, contracting with such parties could be more efficient and, if National Grid chose not to enter into contracts these parties, it could be in breach of its licence obligation to operate the system in an efficient and economic manner. The CBSG concluded that the bi-lateral agreement route is unlikely to work.

A Code obligation on NGET to publish the information would have the same effect as an explicit licence obligation because NGET is required to comply with the Codes. Furthermore, such an obligation would deem the Code parties (to whom the information related) to have granted consent to the publication of that information. A key benefit of a Code obligation is that it would provide flexibility for future changes to information requirements whilst ensuring full industry involvement through the Code governance processes. However, the CBSG did not consider this to be a viable option as the commercial bilateral agreements are outside the scope of the Codes; this option will require further investigation, particularly in relation to existing bilateral agreements before any information could be published.

The Procurement Guidelines are considered to be descriptive and may not provide as much safeguard as the Codes or the licences which are considered to be prescriptive documents.

An explicit obligation in NGET's licence requiring publication of certain information (or requiring NGET to publish such information as the Authority may direct) would relieve NGET of the risk of a breach of the Utilities Act 2000 and the Competition Act 1998 as well as any confidentiality provisions in bilateral agreements. Schedule 3 of the Competition Act explicitly disappplies the prohibitions in the Act to the extent that agreements or conduct are



undertaken to comply with a legal requirement (i.e. such as a licence condition)²¹.

Consultation Question 16

Do you have a preference for provisions on disclosure of information to be included in one of the following (please provide rationale for your answer):

- (i) Bi-lateral agreements?*
- (ii) Codes (e.g. BSC)?*
- (iii) Procurement Guidelines?*
- (iv) Generation / NGET licences?*
- (v) Other*

5.7 Potential Transparency Requirements from European 3rd Package²²

The CBSG discussed two areas in relations to the potential transparency requirements from the European 3rd package, namely, the provision of transmission outage information and general accessibility of information.

5.7.1 Provision of Transmission outage Information

Paragraph 4.2.2.1 of the ERGEG Draft Comitology Guidelines requires Transmission System Operators (TSOs) to publish “planned outages on interconnectors and in the transmission grid that reduce available interconnection capacities, if the impact on capacity is equal to or greater than 100 MW during at least one market unit time”.

²¹ With regard to compliance with EU rules, if a contract has no effect on trade between Member States of the EU, the EU rules will not apply. National grid considers that this is the case here in relation to ancillary services where the Commission has found in the past that ancillary services markets are national or narrower in scope.

²² Link to European Transparency consultation (deadline for responses closed on 28 October 2010):

http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/OPEN%20PUBLIC%20CONSULTATIONS/Comitology%20Guideline%20Electricity%20Transparency/BG



Paragraph 4.2.2.2 of the Guidelines requires the TSOs to publish “details of actual outages in the transmission grid and on interconnection immediately after the real time and at the latest H+1 after the occurrence”.

The CBSG expressed reservations about publication of ex-ante and ex-post information on transmission outages because of security concerns but, if required, preferred the publication of ex-post information.

Consultation Question 17

*Do you think that there would be benefit in publishing information on **planned** transmission outages? Please state what benefits you would derive from this information.*

Consultation Question 18

*Do you think that there would be benefit in publishing information on **actual** transmission outages? Please state what benefits you would derive from this information.*

5.7.2 General Accessibility of Information

Paragraph 3.6.3 of the Guidelines states that “the website is to be easily accessible to the public, free of charge for the information specified in these guidelines and without any need to register or otherwise sign on with ENTSO-E”.

Whilst the CBSG did not consider in detail the information requirements of the Guidelines, it did consider that making any constraint-related information available to the public could pose security risks. The CBSG suggested that such risks could be mitigated by restricting access to the information platform via a secure password-protected website which is only accessible to market participants. This approach could also capture an audit trail of participants using the website.

Some CBSG members considered whether access to the information should be further restricted to only those parties that need such information whilst other members considered that the same information should be available to all parties.

**Consultation Question 19**

Do you have a preference for access to the constraint-related information in one of the following ways (please provide rationale for your answer):

(i) Public access (no restrictions)?

(ii) Access restricted to market participants only?

(iii) Access restricted to parties on a 'need to know' basis?

(iv) Access to information in some other way (please provide rationale).

6 Consultation Responses

6.1 Summary of Consultation Questions

The consultation questions are summarised in Appendix 5.

6.2 How to Respond

Responses should be submitted by replying to the consultation questions in Appendix 5 and e-mailing the completed proforma to balancingservices@uk.ngrid.com.

If you do not wish any elements of your response to be made publicly available, please mark these as confidential.

6.3 Deadline for Responses

The consultation period for this consultation is one month from the date of publication (5 November 2010) of this document. Therefore responses are required **by 5 December 2010**.

Following this, National Grid will aim to publish a consultation report in early 2011.

6.4 Help with Queries

If you have queries regarding any aspect of this consultation, please contact:

Shafqat Ali
Senior Commercial Analyst



National Grid House
Gallows Hill
Warwick Technology Park
Warwick
CV34 6DA

Phone: 01926 655980

Mobile: 07879 602814

E-mail: shafgat.r.ali@uk.ngrid.com or balancingservices@uk.ngrid.com

7 Next Steps

Once the consultation responses have been received, National Grid will summarise these responses for discussion by the CBSG with a view to identifying areas that could be developed into proposals.

The consultation responses and the proposed way forward will be summarised in a consultation report which will be published on National Grid's website on <http://www.nationalgrid.com/uk/Electricity/Balancing/consultations/>.

Any proposals that come out of this consultation will follow appropriate governance framework.

8 Appendix 1: Summary of Constraint-related Information Currently Available to the Market

CBSG 12/4/10 Level of Detail	Source of Constraint-related Information					
	PG report	MBSS	BSIS	BMRS		
				Forecast	Outurn - operational	Outurn - constraints
Type of information	Constraints; System to generator intertrips; Commercial intertrips; Ancillary contracts	Same as PG report	Constraints	Generation / Output Usable*; Demand; Surplus;	Generation; Demand; System frequency	Constraints (post P217)
Cost	✓	✓	✓	x	x	✓
Volume / other	x	Constrained volume; Arming hours (commercial intertrips);	x	✓	✓	✓
Import / export split	✓	✓	x	x	x	✓
Geographic split	Scotland; E&W; Cheviot.	Scotland; E&W; Cheviot.	Scotland; E&W; Cheviot.	National'; Zonal (by BMRS zones);	National';	BMU level
Ex ante	x	x	✓	✓	x	x
Ex post	✓	✓	✓	x	✓	✓
Publication timing	Within 1 month	Within 1 month	Consultation timeline	day ahead 2-14D ahead; 2-52W ahead;	Real time; Within 15 minutes after Settlement Period;	Within 15 minutes after Settlement Period;
Publication frequency	Annual	Monthly	Annual	at least 4 times a day (demand; daily; weekly	Real-time, Half-hourly;	Half-hourly;
Data aggregation period	Month	Month	Year	Half-hour; day; week	one minute (frequency graph); 5-minute; half-hour	Action-dependent

* At BM Unit level from 4/11/10

9 Appendix 2: Details of Parties in Each OC2 Zone

- Parties in OC2 Zone A**
- 1 British Gas Trading Ltd
 - 2 Npower Limited
 - 3 NDA
 - 4 Glens of Foudland Ltd
 - 5 Grangemouth CHP Ltd
 - 6 Kilbraur Wind Energy Ltd
 - 7 SP Generation Ltd
 - 8 Millennium Wind Energy Ltd
 - 9 SSE Renewables Generation Ltd
 - 10 Centrica RPS Limited
 - 11 SSE Generation Ltd
 - 12 GDF Suez Teesside Limited
 - 13 British Energy Generation Ltd
 - 14 SP Renewables (UK) Limited

- Parties in OC2 Zone E**
- 1 Bagen Operations Ltd
 - 2 Centrica Barry Limited
 - 3 RWE NPOWER PLC
 - 4 ESSO Petroleum Company Ltd
 - 5 British Energy Generation Ltd
 - 6 Indian Queens Power Ltd
 - 7 Centrica Langage Ltd
 - 8 Marchwood Power Limited
 - 9 NDA
 - 10 Seabank Power Limited
 - 11 ScottishPower (SCPL) Ltd
 - 12 Uskmouth Power Company Limited

- Parties in OC2 Zone F**
- 1 BARKING POWER LIMITED
 - 2 RWE NPOWER PLC
 - 3 SP Generation Ltd
 - 4 E.ON UK plc

- Parties in OC2 Zone G**
- 1 Coryton Energy Company Ltd
 - 2 ScottishPower (OCL) Ltd
 - 3 British Energy Generation Ltd
 - 4 SP Renewables (UK) Limited
 - 5 E.ON UK plc
 - 6 Medway Power Ltd
 - 7 RWE NPOWER PLC

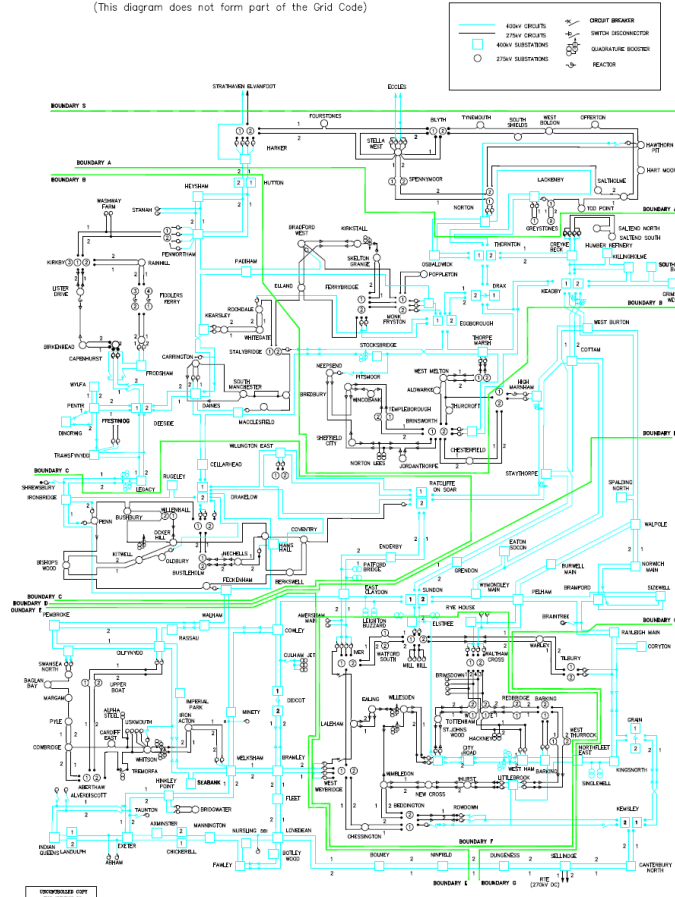
- Parties in OC2 Zone S**
- 1 British Gas Trading Ltd
 - 2 Npower Limited
 - 3 Glens of Foudland Ltd
 - 4 Grangemouth CHP Ltd
 - 5 Kilbraur Wind Energy Ltd
 - 6 SP Generation Ltd
 - 7 Millennium Wind Energy Ltd
 - 8 SSE Renewables Generation Ltd
 - 9 SSE Generation Ltd
 - 10 British Energy Generation Ltd
 - 11 SP Renewables (UK) Limited

- Parties in OC2 Zone C**
- 1 Derwent CoGeneration Ltd
 - 2 E.ON UK plc
 - 3 Rugeley Power Generation Ltd

- Parties in OC2 Zone D**
- 1 Bagen Operations Ltd
 - 2 BARKING POWER LIMITED
 - 3 Centrica Barry Limited
 - 4 CORBY POWER LIMITED
 - 5 Coryton Energy Company Ltd
 - 6 ScottishPower (OCL) Ltd
 - 7 SP Renewables (UK) Limited
 - 8 ESSO Petroleum Company Ltd
 - 9 Indian Queens Power Ltd
 - 10 Centrica KL Limited
 - 11 Centrica Langage Ltd
 - 12 Medway Power Ltd
 - 13 Marchwood Power Limited
 - 14 NDA
 - 15 Centrica PB Limited
 - 16 SP Generation Ltd
 - 17 Seabank Power Limited
 - 18 ScottishPower (SCPL) Ltd
 - 19 British Energy Generation Ltd
 - 20 Spalding Energy Company Ltd
 - 21 EDF ENERGY (SUTTON BRIDGE PWR)
 - 22 E.ON UK plc
 - 23 RWE NPOWER PLC
 - 24 Uskmouth Power Company Limited

- Parties in OC2 'No Zone'**
- 1 DONG Energy Burbo (UK) Ltd
 - 2 E.ON UK plc
 - 3 Jade Power Generation Ltd
 - 4 Dreeside Power Limited
 - 5 First Hydro Company
 - 6 Keadby Generation Limited
 - 7 British Energy Generation Ltd
 - 8 Rockcastle Power Company Ltd
 - 9 GDF SUEZ Marketing Ltd
 - 10 RWE NPOWER PLC
 - 11 West Burton Limited
 - 12 NDA

ATTACHMENT TO OC2 – SYSTEM ZONAL BOUNDARIES
(This diagram does not form part of the Grid Code)





10 Appendix 3: Details of Parties in Each BMRS Zone

- Parties in BMRS Zone A**
- 1 SSE Renewables Generation Ltd
 - 2 Airtricity Ltd.
 - 3 British Energy Generation Ltd
 - 4 British Gas Trading Ltd
 - 5 ESB Independent Energy (NI)
 - 6 Grangemouth CHP Ltd
 - 7 Glens of Foudland Ltd
 - 8 Kilbraur Wind Energy Ltd
 - 9 Millennium Wind Energy Ltd
 - 10 Northern Ireland Electricity
 - 11 Npower Limited
 - 12 SP Renewables (UK) Limited
 - 13 SP Generation Ltd
 - 14 SP Energy Management Ltd
 - 15 SSE Energy Supply Limited
 - 16 SSE Generation Ltd
 - 17 SSE (IRELAND) LIMITED
 - 18 GDF Suez Teesside Limited
 - 19 VIRIDIAN ENERGY SUPPLY LTD

- Parties in BMRS Zone B**
- 1 Centrica Brigg Limited
 - 2 Jade Power Generation Ltd
 - 3 Derwent CoGeneration Ltd
 - 4 Drax Power Ltd
 - 5 Eggborough Power Limited
 - 6 Heartlands Power Ltd
 - 7 Immingham CHP LLP
 - 8 Keadby Generation Limited
 - 9 Centrica KPS Limited
 - 10 E.ON UK plc
 - 11 Rugeley Power Generation Ltd
 - 12 SCCL
 - 13 Centrica SHB Limited
 - 14 Spalding Energy Company Ltd
 - 15 RWE NPOWER PLC
 - 16 West Burton Limited

- Parties in BMRS Zone C**
- 1 DONG Energy Burbo (UK) Ltd
 - 2 E.ON UK plc
 - 3 Deeside Power Limited
 - 4 First Hydro Company
 - 5 Keadby Generation Limited
 - 6 British Energy Generation Ltd
 - 7 Rocksavage Power Company Ltd
 - 8 Centrica RPS Limited
 - 9 GDF SUEZ Marketing Ltd
 - 10 NDA

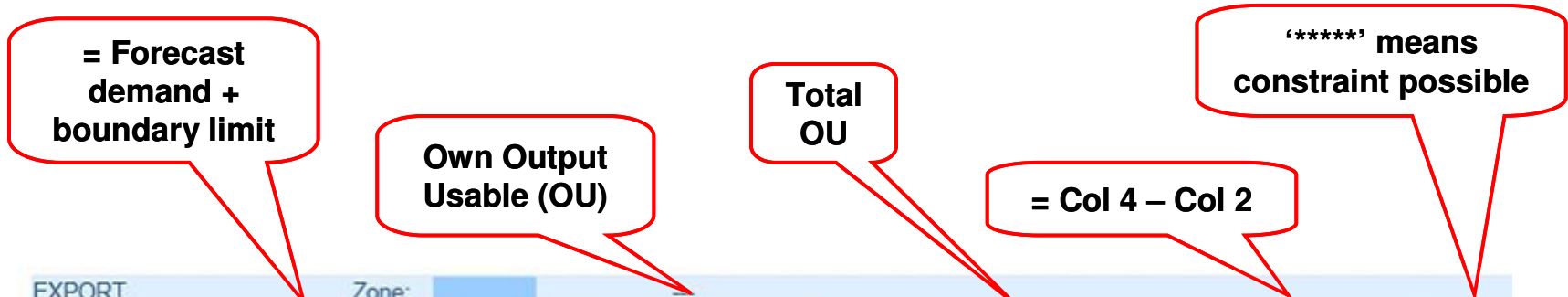
- Parties in BMRS Zone D**
- 1 Baglan Operations Ltd
 - 2 BARKING POWER LIMITED
 - 3 Centrica Barry Limited
 - 4 CORBY POWER LIMITED
 - 5 Coryton Energy Company Ltd
 - 6 ScottishPower (DCL) Ltd
 - 7 ESSO Petroleum Company Ltd
 - 8 VITOL SA
 - 9 Accord Energy
 - 10 J.Aron & Company
 - 11 Merrill Lynch Commodities LTD
 - 12 Barclays Bank plc
 - 13 BKW FMB Energie AG
 - 14 BP Gas Marketing Limited
 - 15 Cargill PLC
 - 16 Deutsche Bank AG London
 - 17 EDF TRADING LIMITED
 - 18 EG LAUFENBURG
 - 19 Electrabel SA
 - 20 E.ON Energy Trading SE
 - 21 Energie Ouest Suisse (EOS)
 - 22 Gaselys
 - 23 GAZPROM MARKETING & TRADING LD
 - 24 GDF SUEZ Marketing Ltd
 - 25 Iberdrola Generacion S.A.U.
 - 26 JPMorgan Ventures Energy Corp
 - 27 Morgan Stanley
 - 28 Nexen Energy Marketing London
 - 29 The Royal Bank of Scotland Plc
 - 30 Sempra Energy Europe Ltd
 - 31 Shell Energy Trading Limited
 - 32 SP Energy Management Ltd
 - 33 Statkraft Markets GmbH
 - 34 Total Gas & Power Ltd
 - 35 Vattenfall Trading Services
 - 36 Indian Queens Power Ltd
 - 37 Centrica KL Limited
 - 38 Medway Power Ltd
 - 39 Marchwood Power Limited
 - 40 NDA
 - 41 Centrica PB Limited
 - 42 SP Generation Ltd
 - 43 Seabank Power Limited
 - 44 ScottishPower (SCPL) Ltd
 - 45 British Energy Generation Ltd
 - 46 EDF ENERGY (SUTTON BRIDGE PWR)
 - 47 E.ON UK plc
 - 48 RWE NPOWER PLC
 - 49 Uskmouth Power Company Limited

- Parties in BMRS Zone E**
- 1 Baglan Operations Ltd
 - 2 Centrica Barry Limited
 - 3 RWE NPOWER PLC
 - 4 ESSO Petroleum Company Ltd
 - 5 British Energy Generation Ltd
 - 6 BKW FMB Energie AG
 - 7 Cargill PLC
 - 8 EDF TRADING LIMITED
 - 9 GDF SUEZ Marketing Ltd
 - 10 Indian Queens Power Ltd
 - 11 Centrica Langage Ltd
 - 12 Marchwood Power Limited
 - 13 NDA
 - 14 Seabank Power Limited
 - 15 ScottishPower (SCPL) Ltd
 - 16 Uskmouth Power Company Limited



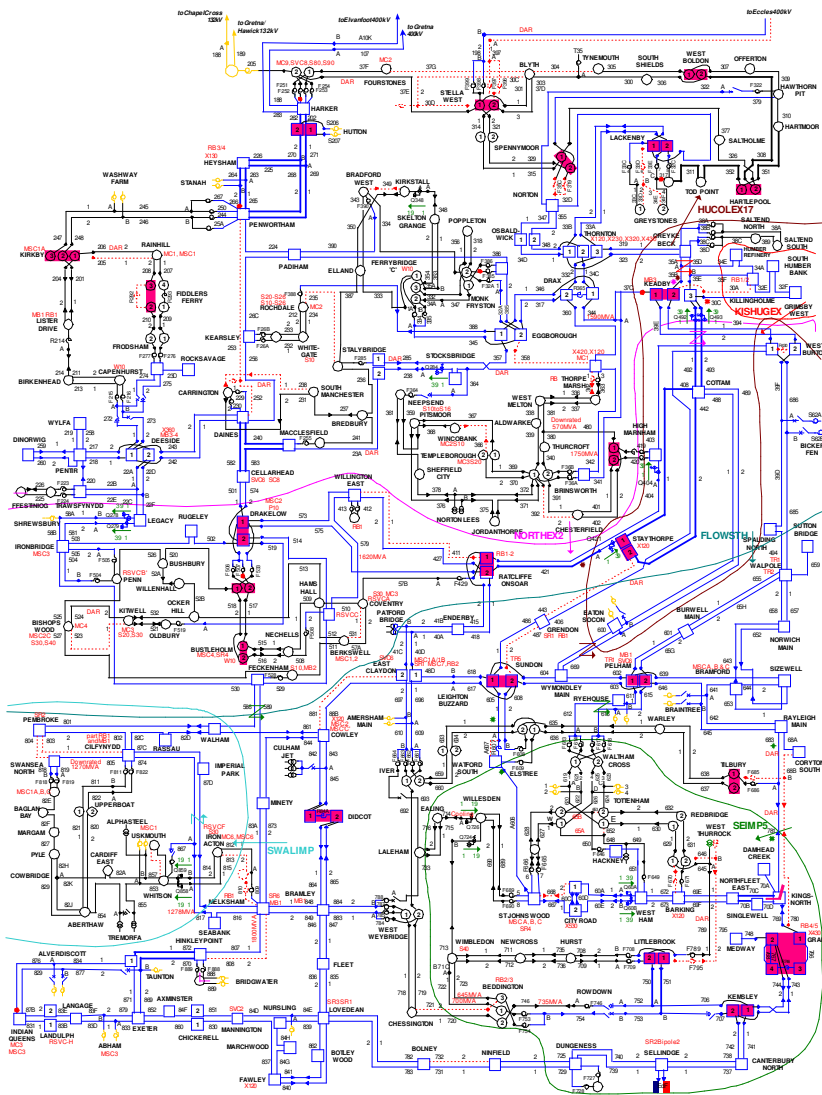


11 Appendix 4: An Example of Information Available in the TOGA System



EXPORT Date	Zone: MaxGen Usable	Own Output Usable (OU)	Total OU	Total Availability	Zonal Surplus	Problem
20/06/2010	17286	912	912	23476	6190	*****
21/06/2010	18970	911	911	25185	6215	*****
22/06/2010	19043	911	911	25350	6307	*****
23/06/2010	18922	911	911	25770	6848	*****
24/06/2010	18946	911	911	25350	6404	*****
25/06/2010	18801	911	911	25350	6549	*****
26/06/2010	17446	911	911	25356	7910	*****
27/06/2010	17252	911	911	25356	8104	*****
28/06/2010	18922	911	911	24783	5861	*****
29/06/2010	18922	910	910	24293	5371	*****
30/06/2010	18922	910	910	24241	5319	*****
01/07/2010	18922	898	898	23339	4417	*****
02/07/2010	18825	898	898	23915	5090	*****

12 Appendix 5: Example of a day ahead 'Picasso' Diagram Showing Likely Constraint Boundaries





13 Appendix 6: Constraint Cost Allocation

Example 1

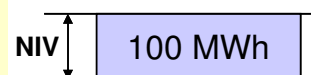
Assume long market (Net Imbalance Volume, NIV, < 0), export constraint

Only 2 bids available:

- ◆ 100MWh at £10/MWh - resolves both constraint and NIV
- ◆ 100MWh at £25/MWh – only resolves NIV

➤ Accepted 100MWh at £10/MWh

Cost = -100MWh * £10/MWh = -£1,000 (i.e. income)



Separating energy and constraint costs

'Ideal' cost of resolving NIV = -100MWh*£25/MWh = -£2,500 (i.e. income)

Cost of resolving constraint = -£1,000-(-£2,500) = £1,500 (expense)

Or constraint cost = volume * (Price accepted – 'reference' price)

Example 2

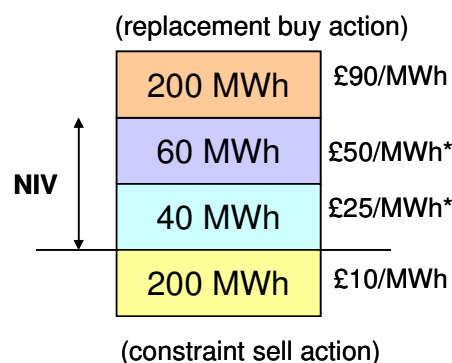
Assume short market (Net Imbalance Volume, NIV > 0), export constraint

Reference price 'P0' = volume-weighted average of feasible offers to meet NIV i.e.
 $P0 = (60 \cdot 50 + 40 \cdot 25) / (60 + 40) = \text{£}40/\text{MWh}$

Cost of energy imbalance
 = NIV * P0 = 100 * 40 = £4,000

Cost of constraint action
 = -200 * (10 - 40) = £6,000

Cost of replacement action
 = 200 * (90 - 40) = £10,000



* Feasible offers

14 Appendix 7: Consultation Questions

National Grid invites responses to this consultation by 5 December 2010. The responses to specific consultation questions (summarised below) or any other aspect of this consultation can be provided by completing the following proforma.

Please return the completed proforma to balancingservices@uk.ngrid.com.

Respondent:	
Company Name:	
Does this response contain confidential information?	

No	Question	Response (Y/N)	Rationale
1	Do you find the BMRS zonal information beneficial? (i) If yes, please provide rationale, including any qualitative and/or quantitative benefits. (ii) If no, please state whether the BMRS zonal information could be removed to improve efficiency of information provision (section 5.1).		
2	Do you think that there would be benefit in aligning the BMRS zones with OC2 zones? Please state what benefits you would derive from this improvement (section 5.1).		
3	Do you think that the current OC2 and BMRS zones should be reviewed to assess their appropriateness? Please provide rationale (section 5.1).		
4	Do you think that there would be benefit in aligning the OC2/BMRS zones with the Seven Year		



No	Question	Response (Y/N)	Rationale
	<i>Statement study zones? Please state what benefits you would derive from this improvement (section 5.1.3).</i>		
5	<i>Do you think that there is sufficient information on opportunities for generation connection within SYS? If not, please provide details of any additional information needs in this area (section 5.1.4).</i>		
6	<i>Do you think that there would be benefit in making TOGA generator outage information available to all market participants? Please state what benefits you would derive from this information (section 5.2).</i>		
7	<i>Do you think that there would be benefit in making TOGA generator availability information available to all market participants? Please state what benefits you would derive from this information (section 5.2).</i>		
8	<i>Do you think that making the Picasso information available to the market would reduce the costs of transmission constraints? Please state how you would use this information to help reduce the constraint costs (section 5.3.2).</i>		
9	<i>Do you think that simpler and easier to interpret Picasso information (e.g. aggregate information for a given constraint group) would meet your information needs? Please provide rationale how best such information could be published (section 5.3.2).</i>		
10	<i>Do you feel that provision of</i>		



No	Question	Response (Y/N)	Rationale
	<i>Picasso information could lead to national security issues? Please provide rationale, including any alternative ways of providing this information to the market which would avoid these concerns (section 5.3.3).</i>		
11	<i>Do you feel that the release of the Picasso information could result in an increase (or decrease) in constraint costs. Please provide rationale (section 5.3.3).</i>		
12	<i>Do you feel that there would be benefit in ex-post publication of Picasso information as a way of mitigating risk of market exploitation whilst providing transparency for greater scrutiny? Please provide rationale (section 5.3.3).</i>		
13	<i>Do you think that there would benefit in making the cost allocation methodology available to the market? Please provide rationale (section 5.4).</i>		
14	<i>If the answer to Q10 is yes, please stated how such a methodology should be governed (e.g. via licence) (section 5.4).</i>		
15	<i>Do you think that there would benefit in publishing more granular information on constraint management tenders and bilateral agreements. Please state how you would use this information to help reduce the constraint costs (section 5.5).</i>		
16	<i>Do you have a preference for provisions on disclosure of information to be included in one of the following (please provide rationale for your answer):</i>		



No	Question	Response (Y/N)	Rationale
	<p>(i) Bi-lateral agreements? (ii) Codes (e.g. BSC)? (iii) Procurement Guidelines? (iv) Generation / NGET licences? (v) Other (section 5.6).</p>		
17	<p>Do you think that there would be benefit in publishing information on planned transmission outages? Please state what benefits you would derive from this information (section 5.7).</p>		
18	<p>Consultation Question 18 Do you think that there would be benefit in publishing information on actual transmission outages? Please state what benefits you would derive from this information (section 5.7.1).</p>		
19	<p>Do you have a preference for access to the constraint-related information in one of the following ways (please provide rationale for your answer): (i) Public access (no restrictions)? (ii) Access restricted to market participants only? (iii) Access restricted to parties on a 'need to know' basis? (iv) Access to information in some other way (please provide rationale) (section 5.7.2).</p>		
20	<p>Are there any other comments that you wish to make on this consultation?</p>		