Issue	Revision
1.0	INFORMAL CONSULTATION DRAFT

Informal Consultation on Exit Capacity Substitution and Revision

30 June 2010

nationalgrid

Contents

1. General Introduction

1 National Grid Gas plc ("National Grid") is the holder of the Gas Transporter Licence (the "Licence") in respect of the National Transmission System (the "NTS"). The Licence is reviewed periodically (every five years) in the Transmission Price Control Review ("PCR"). The review is concerned with setting, principally, National Grid's allowed revenues as the owner and operator of the NTS in Great Britain. At the time of the PCR National Grid's rights and obligations are reviewed and may be amended.

2 The 2007 PCR introduced new obligations on National Grid in respect of the release of an agreed level of NTS Exit Capacity at each NTS Exit Point, the "baseline" level. Through the PCR National Grid has been remunerated in respect of this capacity. The PCR also sets out requirements to amend the baselines in certain circumstances in order to maximise National Grid's obligation to release capacity at locations where demand is greatest. The new exit capacity substitution and exit capacity revision obligations have been the subject of a series of industry workshops.

3 This document reviews the debate on the exit capacity substitution and exit capacity revision obligations and seeks views on both the proposals developed and the issues that need to be resolved before National Grid is able to present formal proposals to the Authority. Responses should be sent to National Grid to arrive no later than 17:00 on 6th August 2010.

They should be sent by e-mail to:
box.transmissioncapacityandcharging@uk.ngrid.com.
and copied to lesley.ramsey@uk.ngrid.com

Alternatively they can be sent by post to:

Lesley Ramsey
National Grid
Transmission Commercial
NG House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

4 It is intended that responses to this document will provide National Grid with sufficient information on the views of industry players to formulate an exit capacity substitution and revision methodology statement. The methodology statement will then be formally consulted upon and subsequently put forward to the Authority in accordance with the timelines specified in the Licence[1].

5 In addition to the methodology statement National Grid will develop associated proposals, e.g. a UNC modification proposal, as is necessary to implement the final proposals. However, based on discussions within, and external to, the workshops, National Grid does not envisage this being necessary. However, this will be dependant upon the final proposed methodology.

[1] As amended by the Authority's direction dated 23rd February 2009 (see paragraph 9).

1.1. Background

6 The Licence introduced the exit capacity substitution and revision obligations for the enduring exit period, i.e. in respect of exit capacity available for use from 1st October 2012. It was initially intended that these obligations would come into effect with the new Licence, with a latest date for submission of methodology statements by 1st April 2008. This would have been consistent with the intended introduction of new exit capacity application processes ("exit reform").

7 However, the introduction of exit reform was delayed and National Grid raised UNC modification proposal 198[2] to extend the transitional exit period. Consequently on 29th February 2008 the Authority agreed to a delay to the introduction of the exit capacity substitution and revision obligations. The revised date for submission of proposed methodology statements being 1st April 2009.

8 The 2007 PCR also introduced a number of significant changes to the entry capacity regime, specifically entry capacity transfer & entry trade, and entry capacity substitution. These changes to the entry regime raised a number of contentious issues and were developed over a period of time through industry workshops and consultations.

9 Due to the complexity of the issues being considered, National Grid proposed that the development of the exit capacity substitution and revision methodologies should be delayed further until after entry capacity substitution had been implemented. The Authority, being mindful of the industry workload in relation to entry substitution and enduring offtake reform at that time, agreed to the proposal. In their letter of 23rd February 2009 explaining the reasons for consenting to a delay (see http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/Documents1/C8E%20derogation%20090204.pdf), Ofgem agreed that

- industry should be given sufficient time to develop the exit substitution regime; and
- Ofgem should have sufficient time to appraise the proposed methodology.

The revised, and current, obligations are to submit exit capacity substitution and revision methodology statements to the Authority by 4th January 2011. This would allow Ofgem to undertake its assessment by April 2011 so that new arrangements could be implemented from the July 2011 Application window.

10 In granting a delay in February 2009 Ofgem were conscious of the need to provide certainty that revised dates for delivery of exit capacity substitution and revision methodologies would be achieved. They did therefore require National Grid to publish a timetable of planned workshops. This timetable was presented to the Distribution Workstream meeting on 26th November 2009 and Transmission Workstream meeting on 6th December 2009 and can be found at http://www.nationalgrid.com/NR/rdonlyres/2A34D446-8A9D-4EA6-A081-E2548DFEE401/38584/Plansonwebsite25Nov09.pdf
The draft timetable is attached as diagram 1. It should be noted that workshop 5 has been re-scheduled for 7th September 2010.

11 Ofgem also required National Grid to issue interim reports setting out progress. The first of these was delivered to Ofgem on 27th April 2010 and can be found at http://www.nationalgrid.com/NR/rdonlyres/0189988D-C706-4C54-8D07-A310BB949702/40919/InterimreportonExitSubstitution_Apr10Final.pdf
This report sets out many of the issues covered by this consultation document; including a summary of workshop presentations and a view on implementation issues.

[2] UNC modification proposal 0198: "Extension of the Current Sunset Clauses for Registration of Capacity at NTS Exit Points": http://www.gasgovernance.co.uk/0198.

12 Consistent with the published timetable National Grid arranged a series of workshops (Exit Substitution Workshops 1 to 4) held between 27th January and 25th May 2010 to:

- review the exit capacity substitution and revision obligations;
- assess the potential benefits from substitution and revision to assist in developing methodologies of proportionate complexity;
- identify potential issues;
- identify potential options for the methodologies; and
- to provide worked examples showing the possible effects of exit capacity substitution on donor NTS Exit Points.

Workshop minutes and presentations can be found on the National Grid website at: http://www.nationalgrid.com/uk/Gas/Charges/statements/transportation/ExCapSubMS/

13 The workshops have culminated with National Grid undertaking this informal consultation on issues relating to a possible exit capacity substitution and revision methodology statement. This methodology forms the basis of National Grid's current thinking and, with variants and options, is discussed in sections 2 and 3.

14 This report summarises the development of exit capacity substitution and revision methodologies and seeks views on the initial proposals presented. It further seeks views on a range of issues raised in the workshops. The results of this informal consultation will help form the basis of National Grid's preferred option which will be the subject of the formal consultation required under the Licence.

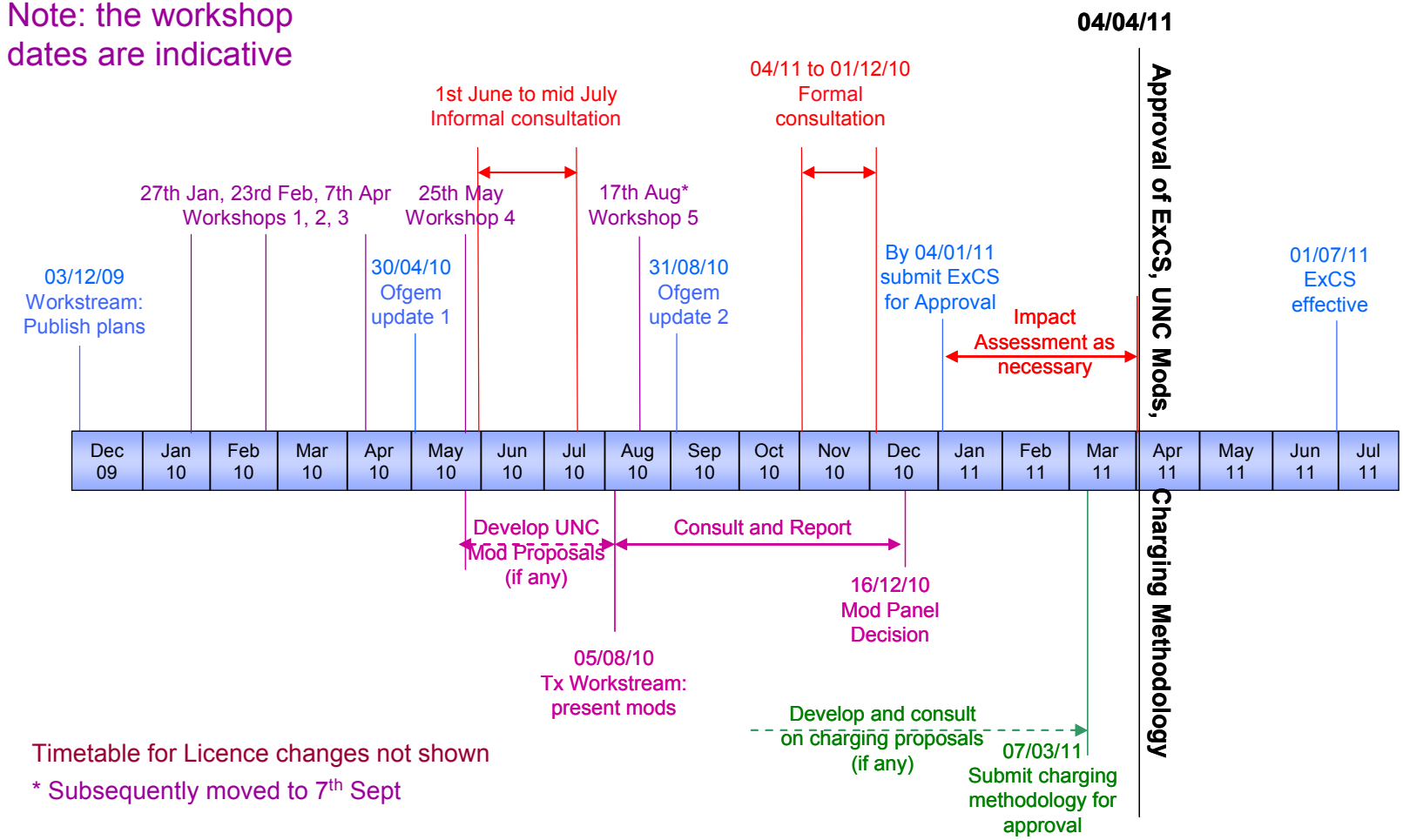
15 Responses to these issues and National Grid's conclusions will be presented at exit substitution workshop 5 on 7th September 2010. Subsequently, and consistent with the Licence, National Grid will formally consult on its proposal for the exit capacity substitution and revision methodology statements no later than 5th November 2010. This will facilitate submission of final proposals to the Authority by 17th December 2010 thereby allowing Ofgem to undertake such appraisal as it considers necessary prior to a decision in time for the 2011 July application window and associated processes.

16 Subject to the conclusions drawn from this informal consultation National Grid will initiate associated UNC and Charging changes that may be necessary.

17 Hence interested parties, wishing to influence National Grid's final proposals, should respond to this discussion paper no later than Friday 6th August 2010.

Diagram 1: Timetable presented to Distribution and Transmission Workstream meetings.

Indicative Timeline: Development of Exit Capacity Substitution and Revision Methodologies.



1.2. Benefits

18 The last PCR introduced several fundamental changes to the entry and exit capacity regime. The aims of the policy measures were to:

- define obligations with respect to capacity release
- ensure baselines better reflect physical capability;
- ensure spare capability is not sterilised;
- ensure capacity is booked longer term;
- define expected build periods for new capacity.

19 With respect to exit capacity a number of specific changes were made to realise these benefits:

- establishment of exit capacity baselines;
- establish new funding arrangements for incremental exit capacity (i.e. revenue drivers);
- an obligation to facilitate exit capacity substitution;
- an obligations to facilitate exit capacity revision;
- establishment of a default 38 month delivery time for new infrastructure with incentives to encourage early release of incremental exit capacity (i.e. permits).

20 The Licence defines “exit capacity substitution” as “the process by which unsold NTS baseline exit flat capacity is moved between NTS exit points such that the level of NTS obligated incremental exit flat capacity is minimised”. In respect of capacity offered for sale it requires National Grid to use reasonable endeavours to substitute capacity, in accordance with the exit capacity substitution methodology statement, such that the level of NTS obligated incremental exit flat capacity is minimised, i.e. to substitute unsold baseline capacity before investing in new infrastructure.

21 The Licence also defines a number of exit capacity substitution objectives which the exit capacity substitution methodology should facilitate. These are set out below:

(a). ensuring that exit capacity substitution is effected in a manner which is compatible with the physical capability of the pipeline system to which this licence relates;

(b). avoiding material increases in the costs (including NTS exit constraint management costs in respect of NTS exit capacity previously allocated by the licensee to relevant shippers or DN operators) that are reasonably expected to be incurred by the licensee as a result of substituting NTS exit capacity; and

(c). in so far as is consistent with (a) and (b) above, facilitating effective competition between relevant shippers.

22 The Licence defines “exit capacity revision” as “the process by which the level of NTS baseline exit flat capacity is modified in accordance with the obligations set out in paragraph 4(c) of Special Condition C8E”. This requires National Grid, in respect of capacity offered for sale, to use reasonable endeavours to revise the exit baseline levels, in accordance with the exit capacity revision methodology statement, in the event that the release of incremental obligated entry capacity changes the availability of NTS exit capacity, i.e. to record, and ultimately use in preference to further investment, the consequential effects on exit capacity of the release of incremental entry capacity.

23 The Licence also defines a number of exit capacity revision objectives which the exit capacity revision methodology should facilitate. These are set out below:

(a). ensuring that exit capacity revision is effected in a manner which is compatible with the physical capability of the pipeline system to which this licence relates;
(b). avoiding material increases in the costs (including NTS exit capacity constraint management costs in respect of NTS exit capacity previously allocated by the licensee to relevant shippers or DN operators) that are reasonably expected to be incurred by the licensee as a result of revising the level of NTS baseline exit capacity; and
(c). in so far as is consistent with (a) and (b) above, facilitating effective competition between relevant shippers.

24 The substitution and revision obligations are intended, therefore, to ensure that investment in new infrastructure is not undertaken unnecessarily.

25 The substitution obligation requires "unwanted" (i.e. unsold) capability at one NTS Exit Point to be used to meet requests for incremental capacity elsewhere. Hence substitution should facilitate economic and efficient utilisation and development of the NTS. As part of a package of changes substitution should encourage Users to signal their capacity requirements in long term applications thereby providing greater clarity on overall requirements such that capacity can best be made available where and when required.

26 The revision obligation requires a re-evaluation of baselines to reflect changes in available system capability created by release of incremental entry capacity. An increase in exit baselines may reduce the need for future exit driven investment thereby facilitating the economic and efficient utilisation and development of the NTS. It should be recognised that the Licence does not limit revision of baselines to increases. There may be circumstances where baselines could be reduced. These are discussed in section 4.

27 The benefits to the industry of exit capacity substitution and revision materialise initially through the non-application of revenue drivers which would be required to be specified for each relevant NTS Exit Point in the Licence. In the longer term, beyond 5 years, the benefit will materialise through lower allowed revenue due to the regulatory asset base being lower than would be the case if National Grid had invested for the incremental capacity released (assuming the investment is deemed economic and efficient).

(a). Where National Grid releases incremental exit capacity which cannot be supported by substitution of capacity from other NTS Exit Points (or by existing unallocated system capability) National Grid will require funding. This capacity is referred to in the Licence as "NTS obligated incremental exit flat capacity" and National Grid is allowed additional revenue determined from the revenue driver for that NTS Exit Point. Consistent with the Exit Capacity Release ("ExCR") methodology statement National Grid would expect to agree a revenue driver with Ofgem before accepting an application for incremental exit capacity.
(b). Where the release of incremental exit capacity at an NTS Exit Point is satisfied through the adjustment of the baseline at that NTS Exit Point (either by substituting from another NTS Exit Point or revision) the incremental exit capacity is absorbed into the "NTS baseline exit flat capacity" and National Grid does not receive additional funding. Hence substitution and revision results in less revenue for National Grid than may[3] otherwise be the case. This will be reflected in lower transportation charges which may be passed on to consumers.

[3] Where incremental exit capacity is satisfied with existing system capability, so called "spare" capacity, National Grid will not normally seek a revenue driver. Hence exit capacity revision merely formalises existing processes so does not provide additional benefit to the industry.

28 In workshop 2, National Grid presented high level investment data which illustrated the likely maximum savings from exit capacity substitution and put this into context by comparison of exit and entry driven investment (see table below). Hence, based on 2009/10 forecast, exit capacity substitution would have a maximum annual benefit equivalent to the revenue driver and rate of return on £22m (£31m actual) of investment. However, it is uncertain that all exit driven investment could be avoided through exit capacity substitution.

National Grid investment by driver (exit/entry only)					
£m	2007/8 actual	2008/9 actual	2009/10 forecast	2009/10 actual	2010 forecast
	Data presented at workshop 2			Additional data available since workshop 2	
Entry	609	224	75	76	65
Exit	76	42	22	31	45

29 As stated above (paragraph 27 (b) and footnote 3), National Grid does not expect exit capacity revision to alter the process for allocation of existing capacity. Hence it is unlikely that any financial benefits will accrue.

30 In workshop 4, National Grid presented examples of how exit capacity substitution may be implemented for two theoretical new power stations with new gas capacity requirements of 50GWh/d; located in the North East and the South East. The results, which are approximate and intended only to provide an indication of likely outcomes, are summarised in the table below with more detail provided in section 6.

Example	**Cost of investment without substitution**	**Revenue Driver**	**Capacity substituted**	**Residual investment**
South East (low flow) Substitute from downstream	£100m	£6.5m/yr	32.46 GWh/d at 0.649:1	nil
South East (low flow) Substitute from upstream	£100m	£6.5m/yr	71.5 GWh/d at 1.546:1	£3m
South East (high flow)	Nil. No investment needed. Existing capability sufficient.	Not applicable	N/A	N/A
North East (multiple supplies)	Nil. As above.	N/A	N/A	N/A

31 The North East example demonstrates that where there is sufficient existing system capability capacity will be allocated without the need for either substitution or investment. Hence there are no savings through substitution as there are no costs to be avoided. In this scenario National Grid has not previously sought a revenue driver.

32 For the South East example the revenue saving is not readily apparent because a Licence revenue driver has not been obtained for this location. However, the actual revenue driver obtained for Coryton has been taken as a guide due to the relatively close location and increment sizes for Coryton and the South East power station example.

33 The avoided revenue driver will result in the avoidance of increases in SO Commodity Charges applicable at both entry and exit points of approximately 0.0003p/kWh[4]. All Users at all NTS Exit and Entry Points would experience this increase. The current SO commodity charge is 0.0196 p/kWh.

[4] Based on an approximation of £2m additional revenue equates to 0.0001 p/kWh.

2. The Exit Capacity Substitution and Revision Methodology

34 Through workshops 1 to 4, National Grid developed potential substitution and revision methodologies; a draft methodology statement accompanies this document. Variations in the draft methodology have been developed consistent with workshop discussion and potential alternative proposals.

35 The fundamentals of the process to identify capacity for substitution and revision are:

- Potential exit capacity substitutions and revisions shall be validated through network analysis.
- The objective of this shall be to ensure that there is no material increase in costs, particularly no increase in the requirement for constraint management actions.
    - Although not a Licence requirement, exit capacity substitution and revisions should be undertaken to ensure that there is also no material decrease in these costs.
- Analysis shall take into account all existing and known future regulatory, statutory, and commercial commitments.
- Analysis shall primarily be undertaken at high demand levels using flows equal to the level of sold NTS exit flat capacity. However, flows at NTS Exit Points in the vicinity[5] of the NTS Exit Point to which capacity may be substituted (the recipient NTS Exit Point) will be set at the obligated level, i.e. equal to the NTS baseline exit flat capacity plus any previously released NTS obligated incremental exit flat capacity. Supply and demand scenarios shall be consistent with the Transmission Planning Code, a copy of which can be found on the National Grid website at: http://www.nationalgrid.com/uk/Gas/TYS/TPC/.

36 Whilst the criteria detailed above are not discussed in this report National Grid would welcome comments on these aspects of the methodology.

a. Are there any other factors that National Grid should consider in the analysis of exit capacity substitution and revision opportunities?

b. Are there any aspects of the analysis that should be excluded or amended?

37 A number of issues were raised in the workshops referred to above. These issues were identified as National Grid sought to identify and develop options and gain industry consensus for implementation of the substitution and revision obligations. Resolution of these issues will be fundamental to the implementation of exit capacity substitution and revision methodologies and are discussed in detail below. These issues include:

- identification of available capacity for substitution ("Substitutable Capacity") (see section 3.1);
- exchange rate cap (see section 3.6);
- exchange rate collar (see section 3.7);
- partial substitution, part investment combinations (see section 3.3);
- treatment of "special" sites (see section 3.2)
    - including interconnectors and European regulations (see section 3.2.3);
- process timelines (see section 3.5);
- transitional rules and soft-landing (see section 3.9).

[5] The "vicinity" refers to NTS Exit Points that have a high degree of interactivity with the recipient NTS Exit Point and hence, is determined on point by point basis. This definition is consistent with the process for determination of revenue drivers.

38 Further issues which have previously been debated are also covered for completeness. These include;

- “spare capacity” (see section 5.1);
- entry capacity revision (see section 5.2);
- movement of sold capacity between NTS Exit Points (see section 5.3);
- User Commitment (see section 5.4).

3. Key Issues with Exit Capacity Substitution

39 Throughout the series of workshops and consultations on entry capacity substitution concern was expressed at the potential for loss of capacity at donor ASEPs. This concern was so intense that the definition of "substitutable capacity" was the fundamental issue defining various methodology options. Potential solutions to limit the scope for capacity to be substituted from donor ASEPs all added a degree of complexity to the implementation of entry capacity substitution. Whilst providing valuable safeguards to the process, many participants thought that these options were too complex.

40 At exit substitution workshop 1 National Grid was mindful of comments regarding entry substitution. At this workshop National Grid presented information intended to put the scope for exit capacity substitution to deliver benefits into context. This information suggested that exit capacity substitution would, at best, deliver only a proportion of the possible benefits of entry capacity substitution (see paragraph 28).

41 There was consensus that the proposed exit capacity substitution methodology should be proportionate to the likely benefits, i.e. simpler than the entry substitution methodology. This objective fed primarily into the definition of substitutable capacity but also, to a lesser extent, into other areas.

3.1. Substitutable Capacity

42 At workshop 1 Ofgem stressed the requirement for a User commitment to prevent capacity from being substituted between NTS Exit Points. This means that the starting point for capacity to not be substitutable is for it to be sold.

43 There was only limited support amongst workshop participants for alternative measures to protect capacity from substitution. The following possible measures were discussed:

- A retainer mechanism, similar to entry capacity retainers. This was rejected as too complex: addition of a retainer application stage, refund mechanism etc. Also, limited competition at exit points could lead to retainers being used as an alternative to buying capacity.
- Two-stage applications. Also rejected due to the difficulty of fitting an additional stage into the existing application timetable. It was felt that the additional process complexity was disproportionate to the potential benefits.
- Forecast demand. Rejected as not meeting the User commitment requirement.

44 It is proposed therefore, that Substitutable Capacity will be defined as any unsold NTS baseline exit flat capacity at an NTS Exit Point, but subject to the following criteria (see also paragraph 19 of the draft exit capacity substitution and revision methodology statement for additional detail):

- The NTS baseline exit flat capacity will be increased (or decreased) as a result of substitution to (or from) the NTS Exit Point.
- Substitutable Capacity must be available indefinitely from the date of the incremental capacity release, i.e. the Substitutable Capacity will be the lowest quantity (assessed at the time of the substitution analysis) for any Day from the proposed incremental exit capacity release date.

c. Is this definition of Substitutable Capacity appropriate? If not, why not?

d. Bearing in mind other issues raised in this consultation document, are there any additional factors that should be included to limit the definition of Substitutable Capacity? If so, please justify such inclusion.

3.2. Special Sites:

45 At workshop 1 National Grid identified a number of categories of offtake where exit capacity substitution may create difficulties for Shippers and/or downstream operators and asked whether these NTS Exit Points should be treated differently to the majority of NTS Exit Points. These are discussed separately below.

3.2.1. DN Flow Swapping

46 DN flow swapping is an arrangement between National Grid as Transmission System Operator and the various Distribution Network Operators. Where a party identifies problems with the offtake of gas from one offtake which can be resolved by taking gas off at another point within the same LDZ, a flow swap may be requested. For example:

- National Grid may ask for gas flows to be swapped from an offtake on one feeder to an offtake on another feeder to relieve constraints on the first feeder;
- DNOs may request a flow swap when an unplanned maintenance issue arises with a particular offtake and flows are swapped with the next downstream offtake.

47 Each party has an obligation under UNC OAD Section I 2.4 and 2.5 to comply with a request from the other party unless, in the opinion of the requestee, safe and efficient operation of their network would be materially prejudiced by the flow swap.

48 Exit capacity substitution will reduce the amount of unsold NTS baseline exit flat capacity available to accommodate flow swaps. This will make the NTS a “tighter” system. Hence, National Grid believes that the point at which safe and efficient operation is compromised will be reached earlier. This may restrict National Grid’s ability to accept flow swap proposals from DNOs.

49 The extent to which DNO requests will be rejected will be limited by the quantity of capacity allocated to the DNO at the relevant NTS Exit Points. This means that because substitution will not occur where baseline capacity is fully sold flow swapping will not be affected. In addition, provided that capacity has been sold to the level required under any flow swap request National Grid will have limited ability to reject the request. However, if capacity has not been sold to that level then not only may flow swaps be rejected, but overrun charges and deemed capacity applications may[6] apply where they are accepted.

50 DNO participants at the workshops highlighted that the frequency of flow swap requests where sufficient exit capacity has not been purchased is fairly low. It was also agreed that issues around overruns was broader than exit capacity substitution. The workshop concluded that the risks to transporters as a result of any impact exit capacity substitution would have on flow swapping arrangements was minimal and no special arrangements were warranted for NTS Exit Points to Distribution Networks.

51 If the alternative conclusion had been reached special arrangement may be required for DN offtakes. This could lead to:

- all DN offtakes being excluded from exit capacity substitution; or
- some, specifically named DN offtakes where flow swapping occurs, being excluded from exit capacity substitution; or
- limits, other than the unsold quantity, being placed on the Substitutable Capacity at DN offtakes, e.g. historical peak flow.

[6] Note: this will be subject to separate industry debate.

52 Conversely, requests from National Grid should not be affected by exit capacity substitution because NTS led flow swaps rely on flexibility within the DN which is unaltered by substitution.

e. Do respondents agree that the risk presented by exit capacity substitution to DNOs' ability to flow swap is not significant? If not, please quantify.

f. Are special arrangements that would exclude some/all DN offtakes from the scope of exit capacity substitution justified?

g. How would the DN offtakes to be excluded from exit capacity substitution be identified?

3.2.2. Interruptible Sites

53 Shippers and downstream operators at locations where capacity has previously been obtained on an interruptible basis[7] may be concerned that such capacity will become unavailable as exit capacity substitution makes the network tighter. There may be a case, therefore, to provide some protection to exclude these NTS Exit Points from exit capacity substitution.

54 In considering the risk to these exit points National Grid notes that:

- NTS baseline exit flat capacity quantities have been set for these NTS Exit Points consistent with historical exit flows. The NTS Exit Points have also been initialised with firm capacity consistent with rules defined in UNC.
- The quantity of off-peak capacity available, in the enduring exit period, at any NTS Exit Point is specified in UNC TPD section B3.6.2(b) and is independent of the baseline quantity as may be adjusted by exit capacity substitution.

55 National Grid has concluded therefore that:

- any risk to interruptible sites will only arise as a result of a definite decision by Shippers to relinquish firm capacity rights;
- the quantity of off-peak capacity available will not be affected by exit capacity substitution, except to the extent that any capacity released at National Grid's discretion may be lower, however,
- the potential for curtailment of off-peak capacity rights may increase as a result of incremental gas flows occurring on the system where these incremental flows are met by exit capacity substitution.

56 National Grid has also concluded that the risk of curtailment to off-peak flows is a predictable consequence of favouring low (or zero) cost off-peak capacity rather than purchasing firm capacity. This is a cost / benefit decision for Shippers and their downstream customers. Hence National Grid can see no justification for discriminating in favour of NTS Exit Points using off-peak capacity.

h. Is National Grid's assessment of the risk to off-peak / interruptible gas flows correct? If not, what have we failed to include and what are the implications?

i. Are special arrangement that would exclude NTS Exit Points using interruptible capacity from the scope of exit capacity substitution justified?

[7] Or where, in the enduring exit period, off-peak capacity will be relied upon.

3.2.3. Interconnectors

57 Throughout the series of workshops some participants have suggested that exit capacity substitution is incompatible with European legislation being developed to harmonise access to transmission capacity across member states. These common rules will only apply to interconnectors (cross-border points) and are currently under development.

58 Guidelines and codes to bring effect to Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 are anticipated to be introduced in March 2011. Hence they should be applicable at the introduction of exit capacity substitution. The regulations can be found at http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2009:211:SOM:EN:HTML

59 Article 16 of the Regulation is the key section and covers "Principles of capacity-allocation mechanisms and congestion-management procedures concerning transmission system operators". Specifically this Article requires that:

(a). The maximum capacity at all relevant points shall be made available to market participants, taking into account system integrity and efficient network operation;

(b). The transmission system operator shall implement and publish non-discriminatory and transparent capacity-allocation mechanisms, which shall:
- provide appropriate economic signals for the efficient and maximum use of technical capacity, facilitate investment in new infrastructure and facilitate cross-border exchanges in natural gas;
- be compatible with the market mechanisms including spot markets and trading hubs, while being flexible and capable of adapting to evolving market circumstances; and
- be compatible with the network access systems of the Member States.

(c). The transmission system operator shall implement and publish non-discriminatory and transparent congestion-management procedures which facilitate cross-border exchanges in natural gas on a non-discriminatory basis and which shall be based on the following principles:
- in the event of contractual congestion, the transmission system operator shall offer unused capacity on the primary market at least on a day-ahead and interruptible basis; and
- network users who wish to re-sell or sublet their unused contracted capacity on the secondary market shall be entitled to do so.

In regard to point (b) of the first subparagraph, a Member State may require notification or information of the transmission system operator by network users.

(d). In the event that physical congestion exists, non-discriminatory, transparent capacity-allocation mechanisms shall be applied by the transmission system operator or, as appropriate, by the regulatory authorities.

(e). Transmission system operators shall regularly assess market demand for new investment. When planning new investments, transmission system operators shall assess market demand and take into account security of supply.

60 National Grid believes that current arrangements are consistent with the Regulations and that no changes will be required as a result. However, this will depend upon the final

rules which are being developed. National Grid is involved in this work and is continuing to monitor for potential impacts.

(a). The requirement to make available maximum capacity is consistent with Licence obligations regarding capacity release and is achieved through the availability of both baseline quantities and incremental capacities. Network analysis ensures that such capacity release is consistent with system integrity whilst User commitments ensure that it is efficient. Entry and exit capacity substitution aim to make sure that capacity is available where it is most needed thereby increasing efficient operation and development of the NTS.

(b). Transparent non-discriminatory capacity allocation mechanisms are achieved through UNC processes and the ExCR methodology statement. The User commitment rules ensure that capacity allocations are subject to economic signals. Combined with substitution these rules maximise efficient use of the technical capability of the NTS by locating commercial capacity where it is most wanted, as evidenced by financial commitments.

(c). National Grid believes that available constraint management tools incentivise National Grid to maximise capacity availability.

(d). Processes defined in UNC and in the IECR and ExCR methodology statements facilitate National Grid's regular assessment of demand for access to the NTS and the need for investment. These processes provide an opportunity for Users to signal their long term capacity requirements. In the absence of such signals National Grid may consider that capacity is not required and hence is available for substitution.

61 National Grid is not aware of any developments in respect of European Regulations that would result in exit capacity substitution being in conflict with those regulations. Substitution maximises the use of system capability in the most efficient (zero cost) manner possible whilst adhering to system limits. As a result National Grid considers it inappropriate and discriminatory to exclude interconnectors from exit capacity substitution at this stage.

62 Notwithstanding National Grid's view that European Regulations, as currently envisaged, will not prevent the application of exit capacity substitution at interconnectors, some workshop participants believe that unless, and until, this is confirmed then substitution should not apply to interconnectors. To exclude interconnectors would, they argue, avoid the risk that capacity is substituted away from an interconnector only for the substitution to be reversed when rules are later confirmed. Whilst National Grid understands the principle behind this approach, we believe that there is insufficient evidence to suggest that there may be a future conflict between substitution and European regulations. Hence, we believe, there is insufficient justification for exclusion of interconnectors.

j. National Grid would like respondents' views of the development of European Regulations, and specifically Article 16 of Regulation (EC) 715/2009. Is National Grid's interpretation of the Regulations correct? Is National Grid correct in stating that existing processes comply with the Regulations as envisaged?

k. Are special arrangements that would exclude interconnectors from the scope of exit capacity substitution justified? If yes, what is the justification and should this be a permanent or temporary feature?

3.3. Partial Substitution

63 The primary aim of the exit capacity substitution obligation is to reduce the amount of investment needed to develop the NTS to meet the requirements of National Grid's customers. Hence capacity, and the associated obligation to make that capacity available, is moved to meet demands for additional capacity elsewhere. There is no investment cost associated with moving this capacity so an increase in National Grid's allowed revenue is avoided.

64 However, it will not always be possible for NTS incremental exit flat capacity to be released entirely through substitution. This will occur where there is insufficient Substitutable Capacity; either because there is limited unsold NTS baseline exit flat capacity in the vicinity of the incremental exit capacity request, or the local network is sufficiently constrained that exchange rates are too high (see 3.6 below).

65 In this event it may be possible to partly satisfy the incremental exit flat capacity request through substitution (partial substitution) with the remainder satisfied through investment (partial investment). In most circumstances it is likely that the partial investment will be less than that required in the absence of partial substitution. Hence undertaking partial substitution should lead to reduced costs and is consistent with the aims of the obligation.

66 However, partial investment presents a problem to the implementation of partial substitution. National Grid will normally seek a revenue driver for an NTS Exit Point prior to an application for NTS obligated incremental exit flat capacity (i.e. capacity where investment is likely to be needed). This will provide National Grid with funding for the anticipated investment. However, revenue drivers are currently determined for a specified incremental quantity at the NTS Exit Point. With partial investment / partial substitution the incremental quantity for which funding is required will not known until after substitution analysis is completed.

67 Whilst it could be possible to agree the revenue driver after the application, the substitution analysis, and Authority approval for the substitution proposals, this would not be acceptable to National Grid. Knowledge of the revenue driver is an important factor in investment decision making and hence must be agreed before the application stage, as detailed in the ExCR methodology statement. Alternatively, the capacity allocation could be delayed until after the revenue driver is agreed and the substitution proposals approved. The capacity release date would also be put back to be consistent with the approval date. This would require an amendment to exit capacity allocation processes in UNC and National Grid believes this is unlikely to be supported by industry.

68 However, National Grid is in favour of partial substitution if adequate funding for partial investment is available at the appropriate time. Although this would not be possible under current arrangements Ofgem are considering the possibility of introducing banded and/or generic revenue drivers and this may help to alleviate the concerns expressed above.

69 Entry capacity revenue drivers are banded to allow a revenue driver to be determined for any incremental quantity. Applied to exit this would allow a revenue driver to be agreed in advance of an application for the anticipated incremental signal (or higher) and any partial investment level.

70 In the event that partial substitution is implemented National Grid would expect any partial investment to be economic and efficient. This may mean that potential substitutions are pared back such that the residual investment is economic, e.g.

reinforcement pipelines will be adjusted to nominal pipe sizes and to suitable connection points.

l. **National Grid would welcome views on whether substitution should only be applied where the whole incremental quantity can be satisfied through substitution or whether partial substitution is preferred.**

m. **Do you think that partial substitution is an added complexity that is disproportionate to the potential benefits?**

n. **Would respondents accept a delay to capacity allocations and release (subject to a UNC modification) pending agreement of partial revenue drivers if banded revenue drivers are not available?**

3.4. Donor NTS Exit Point Selection

71 When identifying substitution opportunities National Grid considers that there are two key criteria that should be satisfied. These are that the process should:

- be as transparent and predictable as is practicable; and
- result in the most efficient capacity substitutions being proposed.

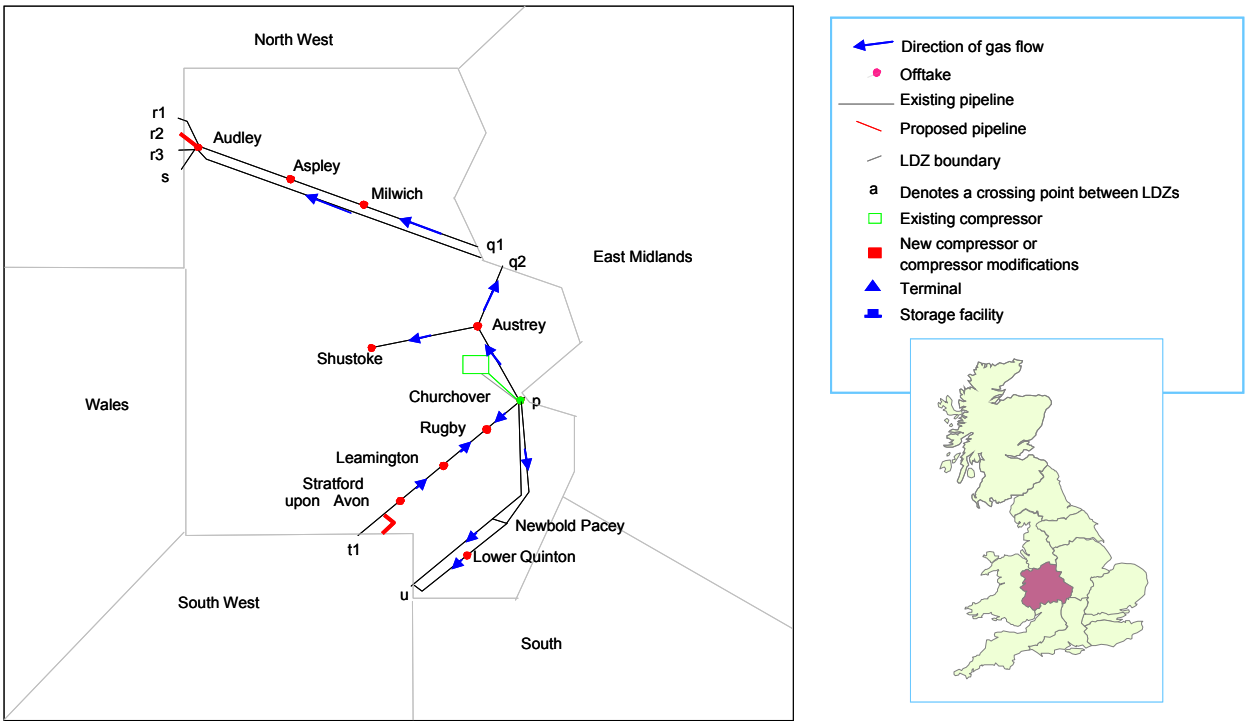
72 This means that a process is required to identify donor NTS Exit Points and that this process should predominantly identify the most efficient donor point. The most efficient donor point would normally be the one that can be substituted at the lowest exchange rate.

73 Combined with an objective for simplicity the workshops agreed that the donor NTS Exit Point should be selected from the same pipeline as the recipient NTS Exit Point. It should also be the furthest downstream available exit point, subject to there being a measurable benefit at the recipient NTS Exit Point. By moving flows from downstream to an upstream point of offtake gas will travel a shorter distance and experience a lower pressure drop. Hence this should be more efficient than substituting from an upstream location.

74 National Grid recognises that in a complex system like the NTS it would not be efficient to limit substitutions to the relevant pipeline. In addition, it is not always apparent what is downstream and upstream. Network analysis will identify, for each scenario analysed, the direction of flow. Hence it is not possible to identify, in advance, the relative position of NTS Exit Points. However, National Grid is considering whether diagrams could be provided giving an indication of typical flow direction. An example was shown at workshop 4 and is reproduced below.

75 To maximise the potential for exit capacity substitution to occur whilst meeting the above objectives, National Grid is considering a process to select donor NTS Exit Points based on:

- firstly identify potential donor NTS Exit Points downstream of the recipient NTS Exit Point and on the same feeder. Select most downstream first and work upstream.
- When these are exhausted, identify potential donor points downstream but on adjacent connected pipelines. Again, select most downstream first, based on pipeline distance.
- When there are no further available donor NTS Exit Points downstream of the recipient, select upstream donors on the same feeder.
- Finally select upstream donors on adjacent connected feeders.



Note: Direction of gas flow in the NTS is determined from the gas charging model based on 2013/14 network. Substitution analysis may be undertaken for a range of supply/demand scenarios which could result in different flow patterns. The above diagram is not definitive and should be used for indicative guidance only.

76 In all cases, where two or more donor NTS Exit Points are identified simultaneously, e.g. same pipeline distance, the most efficient donor (determined by exchange rate) will be selected. If exchange rates are the same, then the donor could be selected by the analyst. However, National Grid believes pro-rating based on Substitutable Capacity would be more appropriate.

77 Upstream analysis will stop at a compressor boundary, i.e. substitution will not occur across, in a downstream direction, a compressor. This is because of the increased workload required of the compressors due to the flow increase.

78 Where a downstream donor point is being considered, this will be rejected where there is little or no benefit to the upstream recipient point.

79 Notwithstanding the other paragraphs of this section 3.4, National Grid is considering the use of “notional” exit points as part of the exit capacity revision process. These notional exit points will be selected for exit capacity substitution before any actual NTS Exit Points. See also section 4.2.

o. National Grid would welcome views on its proposals for selection of donor NTS Exit Points.

p. Do respondents agree that selection on the basis of same pipeline first is appropriate?

q. Do respondents agree that selection on the basis of downstream donor points first is appropriate?

r. Should any other criteria be considered?

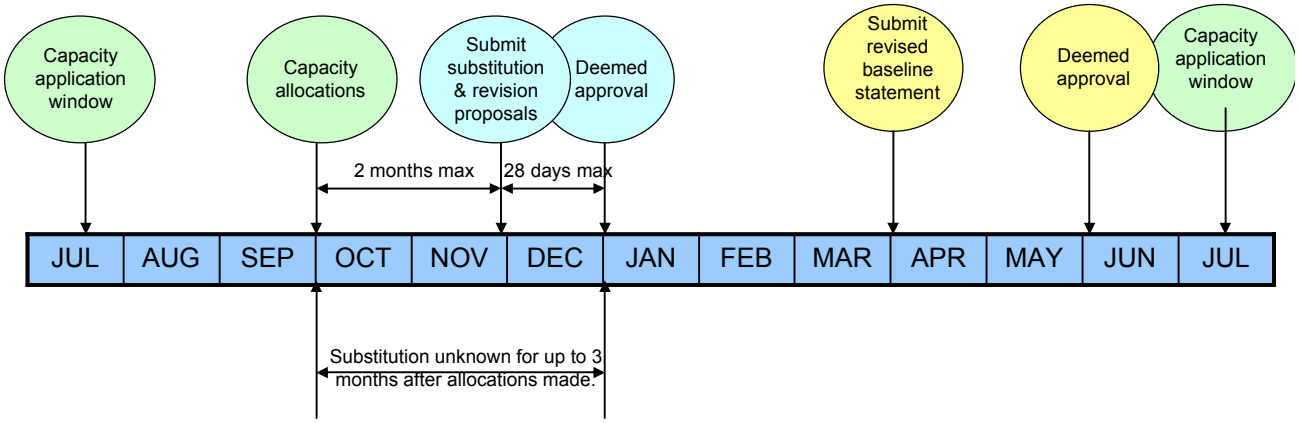
s. Bearing in mind their indicative nature, does the flow direction diagram add value to the methodology?

3.5. Process Timelines

80 National Grid has identified, at various workshops, a number of issues with the timeline for developing exit capacity substitution proposals. These are discussed below.

81 The key milestones in the development and approval of exit capacity substitution proposals are shown in the diagram below.

- Following the July application window National Grid will confirm capacity allocations no later than 30th September. These allocations place a firm obligation on National Grid to make the allocated capacity available.
- Following confirmation of capacity allocations National Grid will identify any requirement for incremental exit flat capacity. National Grid will have a maximum of 2 months in which to submit to the Authority its proposals for release of incremental exit capacity. In practice, this submission will include details on how the incremental capacity will be provided, i.e. whether it can be met by substitution or whether investment is needed. National Grid may be able to extend this period by undertaking some analysis after closure of the application window. However, additional processes allowing DNOs to re-submit capacity applications in September limits the value of any early analysis.
- The Authority has up to 28 days following submission of substitution proposals to approve or veto them. In the absence of a decision the proposals will be deemed approved.



82 The above timeline, dictated by a combination of UNC and the Licence, constrains the time available for National Grid to develop any necessary investment plans. Should the substitution proposals be vetoed National Grid will need to reassess investment plans having lost three or more months from the available lead time. This may result in National Grid being unable to make incremental exit capacity available for the required date.

83 A number of potential solutions are available to provide National Grid with additional time to prepare and, if necessary, revise investment proposals. These include:

- Removal of the Authority's right to veto substitution proposals. This change would require a Licence amendment. Although National Grid would support this amendment we recognise that there was significant support for a process that provides Ofgem oversight of proposals to ensure that inappropriate substitutions were not progressed.
- Revision[8] to, or removal of, via a modification to UNC, the additional process steps whereby DNOs can re-apply for flat capacity following rejection of their NTS Exit

[8] Revision in addition to that envisaged in draft UNC modification proposal "Amendment to the DN adjustment window" presented to May 2010 Transmission Workstream meeting.

(Flexibility) Capacity applications. Conclusion of the capacity application process at the end of July would enable submission of substitution proposals and their consideration by the Authority to be completed two months earlier than the current timetable allows. However, removal of the iteration allowing DNOs to revise NTS Exit (Flat) Capacity applications may push the DNOs towards applying for more flat capacity in the July stage which may in turn lead to unnecessary investment.

- Irrespective of the merits of the above options, National Grid may be able to manage timelines by ensuring that the methodology is as simple as possible in its operation consistent with the aims of transparency and repeatability.

84 In addition to the problem outlined above, the current timeline creates uncertainty in the quantity of unsold capacity available for ad-hoc and ARCA applications in the period 1st October to 31st December.

85 Following capacity allocations at the end of September National Grid will publish the quantity of unsold capacity at each NTS Exit Point. This capacity should be made available for any ad-hoc or ARCA applicant. However, some of this capacity may be identified for substitution to help satisfy a July incremental capacity request. Whether such capacity is available will only become apparent when either:

- National Grid decides such capacity is not to be part of its substitution proposals; or
- the Authority decision on substitution proposals has been made.

86 To resolve this uncertainty National Grid is considering proposing that, notwithstanding the publication of unsold quantities at the end of September, any unsold NTS baseline exit flat capacity that is, or is likely (in the opinion of National Grid) to be, included in National Grid's substitution proposals shall not be available for ad-hoc or ARCA applications until, and unless, it is excluded from those proposals or the proposals have been vetoed.

t. Would you be in favour of a change to the Licence removing the Authority's right to veto substitution proposals put forward by National Grid?

u. Would you support a UNC modification proposal that seeks to remove or limit the additional application processes for DNOs following closure of the July application window?

v. Are there any other alternatives that could be considered that would extend the available time for analysis of substitution opportunities?

w. Do you support National Grid's proposal to not make available capacity, which may be subject to substitution away from an NTS Exit Point, from sale until the Authority's decision on substitution proposals is known?

x. What alternatives are available to manage the uncertainty of capacity availability for ad-hoc / ARCA applications during the Oct-Dec period?

y. Is it appropriate to cover such arrangements in the exit capacity substitution methodology statement or should it be specified in the ExCR methodology statement and/or UNC?

3.6. Exchange Rate Cap

87 With an exchange rate cap substitution of capacity would not be permitted where the capacity substituted from a donor NTS Exit Point is greater than "x" times that created at the recipient NTS Exit Point.

88 Whilst an exchange rate cap would prevent excessive loss of capacity in aggregate across all NTS Exit Points it would not provide definitive protection of capacity at a donor NTS Exit Point. This is because substitutions at exchange rates below the cap would still

proceed and it is through network analysis, undertaken after capacity applications have been made, that actual exchange rates would be determined and substitution opportunities identified.

89 Hence an exchange rate cap would provide no certainty that capacity would not be substituted from a specific NTS Exit Point: subject to the definition of Substitutable Capacity (see 3.1), the only way to protect capacity at an NTS Exit Point is to buy it. It might also be argued that a cap would not ensure that substitutions are "economic", e.g. a 2:1 exchange rate would see a loss of capacity greater than the quantity of incremental capacity released. Even substitutions undertaken at 1:1 could be deemed uneconomic if the capacity at the donor NTS Exit Point has a higher value (notwithstanding that it is unsold) than the recipient NTS Exit Point.

90 The converse argument is that unsold capacity has no value and hence should be available for substitution at any exchange rate. Any exchange rate cap would be set arbitrarily, may be discriminatory and could drive inefficient investment by preventing otherwise sensible substitutions.

91 At workshop 1 there was recognition that an exchange rate cap of 1:1 would be inappropriate, but that a cap should exist, at least in the short term. However, there was no firm view on the level that the cap should be set at. By way of comparison, an exchange rate cap for entry capacity substitution has been set at 3:1. This is subject to on-going review.

92 National Grid would appreciate respondents views on exchange rate caps, specifically

z. Should the exit capacity substitution methodology use an exchange rate cap to limit the impact of substitution on donor NTS Exit Points?

If an exchange rate cap is used:

aa. At what level should the exchange rate cap be set?

bb. Notwithstanding that National Grid is obliged to review the substitution methodology on an annual basis, should the exchange rate cap be set initially at a low level in the expectation of being revised / increased in future years?

3.7. Exchange Rate Collar

93 In respect of entry capacity substitution National Grid argued that substitution should not increase the obligation placed on National Grid to make capacity available and hence exchange rates should not be less than 1:1, i.e. the baseline capacity at the donor ASEP will need to be reduced by no less than one unit of capacity for each unit of incremental capacity at the recipient. This collar has been included in the Entry Capacity Substitution methodology statement.

94 In respect of exit capacity substitution, and in the event that donor NTS Exit Points are identified downstream of a recipient NTS Exit Point, it is expected that the capacity exchange rate required to meet an incremental capacity request at the recipient would normally be less than 1:1. This is because in flowing to the recipient NTS Exit Point the gas will flow a shorter distance into the network, resulting in a smaller pressure drop, thereby making it easier to meet any pressure commitments at the system extremity.

95 The linear nature of exit capacity analysis makes the consideration of exchange rates of less than 1:1 more appropriate to exit capacity substitution. However, arguments remain that an exchange rate collar of 1:1 should be included in the Exit Capacity Substitution methodology statement. These arguments include:

- Capacity substitution aims to minimise investment by moving obligations between system points; it was not envisaged as being a way of increasing the overall level of those obligations.
- Substitution moves capacity from a location where it is unlikely to be required (it is unsold) to a location where there is a high probability of it being required (an incremental requirement has been signalled). Hence even if the overall level of capacity obligation does not increase, there is an increased risk of gas flows occurring against the capacity. This raises the risk of constraint management actions being needed.
- Setting a collar on exchange rates will simplify analysis of substitution opportunities. Assuming a minimum 1:1 exchange rate allows substitutions to be identified quickly without detailed analysis. Due to the limited time available for analysis of incremental capacity requests, investment requirements and substitution opportunities simplification of network analysis processes is a key issue to National Grid. This has already been highlighted in respect of entry capacity substitution in the Entry Capacity Substitution Review 2010 found at: http://www.nationalgrid.com/uk/Gas/Charges/statements/transportation/ecms/ and is discussed in more detail in section 3.5.

96 The disadvantage of a collar is that capacity, in excess of that necessary, is taken from the donor NTS Exit Point, i.e. the NTS baseline exit flat capacity will be reduced by more than is necessary. However, should that excess capacity be required, as a result of a later application, either at the donor NTS Exit Point or at an adjacent NTS Exit Point, then it will be available for re-allocation before investment / substitution is considered.

97 When undertaking the baseline re-jig in 2009 for DN offtakes both a cap and collar of 1:1 was applied. A summary of the re-jig was presented in workshop 4. This provided a level of simplification that allowed many “substitutions” to be assessed in a short space of time. It should be noted that other process rules for the re-jig, e.g. limiting re-jigs to within an LDZ, facilitated the 1:1 cap.

cc. Should the exit capacity substitution methodology use an exchange rate collar to simplify the analysis of substitution proposals?

If yes:

dd. Is a collar set at 1:1 appropriate? If not, what alternative level should the collar be set to?

If no:

ee. What alternatives / simplifications could be considered for reducing the amount of analysis required?

3.8. National Grid / Ofgem Discretion.

98 Throughout the exit capacity substitution workshops, and in the entry capacity substitution workshops, participants recognised that because substitution is a new concept precise outcomes cannot be predicted.

99 National Grid is hoping to produce a methodology that is repeatable and auditable. Hence a methodology that is mechanical in nature is preferred. However, whilst a methodology based on clear rigid rules would provide transparency to external parties it would also prevent National Grid from deviating away from the approved methodology if

the results of applying that methodology were clearly unacceptable. Unacceptable substitution proposals might, for example, include the substitution of capacity away from interconnector exit points.

100 A provision, within the methodology, for National Grid to apply discretion over the substitution proposals arising from the application of the methodology will allow inappropriate substitution proposals to be disregarded. However, National Grid is not comfortable with discretion in this situation as it removes transparency and could lead to lobbying and challenge.

101 An alternative to prevent inappropriate substitutions is for discretion to lie with the Authority. The Licence already requires for substitution proposals to be approved by the Authority. However, it is not explicitly stated under what criteria the Authority will give consent to National Grid's substitution and revision proposals. Notwithstanding this, it is clear that consent will be dependant upon adherence to the approved methodology, the exit capacity substitution/revision objectives and the Authority's wider statutory duties.

102 Throughout the workshops Ofgem have requested views on whether additional clarity is needed in the Licence, e.g. in a similar manner to the changes implemented on 23rd October 2009 for entry capacity substitution. The section 23 notice can be found at: http://www.ofgem.gov.uk/Networks/Trans/GasTransPolicy/Pages/GasTransmissionPolicy.aspx. Participants have not sought any changes.

103 Notwithstanding that National Grid does not have discretion to deviate from the approved methodology, it would not appear sensible for National Grid to make proposals that are evidently going to fall foul of the Authority's assessment criteria. National Grid believes that it is sensible for discussions to take place prior to substitution proposals being submitted thereby giving Ofgem an early opportunity to signal opposition to specific proposals. National Grid could then omit those proposals and this would provide greater certainty of approval by the Authority. However, National Grid is concerned that such discussions and response from Ofgem may not be possible in the time available. Hence the scope for the application of these additional processes may be limited.

ff. Do you believe that National Grid should have discretion to deviate from the approved methodology where the methodology would result in clearly inappropriate substitution proposals?

gg. Do you believe that discretion should lie with the Authority to reject inappropriate substitution proposals?

hh. Do you agree that the Licence and Ofgem's statutory duties provide enough protection for the Authority to apply sufficient discretion to reject inappropriate substitutions?

ii. Do you agree that the methodology should allow discussions between Ofgem and National Grid to identify and eliminate inappropriate substitution proposals before they are submitted?

jj. Do you believe the Licence should be amended to make clearer the criteria by which the Authority will reject National Grid's substitution proposals? If so, what criteria should be included?

3.9. Transitional Rules

104 As discussed above, substitution is a new concept to the exit capacity regime and the outcome of applying it is unclear.

105 Any unintended consequences can be averted through the Authority vetoing inappropriate proposals. However, this is not entirely satisfactory as it does not provide certainty to Users or to National Grid.

106 A more appropriate way to protect against unintended consequences may be to put in place transitional arrangements, i.e. a soft landing. This can only be applied where risks can be identified and appropriate limits defined. In the case of entry capacity substitution an exchange rate cap of 3:1 has been put in place in order to avoid excessive loss to the overall level of capacity. It is expected that a higher, or no, limit will apply if/when experience demonstrates that the lower limit is no longer necessary and Shippers are accustomed to the new processes.

107 Areas that could be considered for transitional rules could include:

- Exchange rate cap: to be set at 3:1.
- Exchange rate collar; to be set at 1:1.
- Exclusion of interconnectors as potential donor NTS Exit Points.

kk. Do you believe that any transitional rules should be included for the initial exit capacity substitution methodology? If so, what areas should be covered?

4. Key Issues with Exit Capacity Revision

108 Exit capacity revision is the process by which the quantity of NTS baseline exit flat capacity is revised as a result of the release of incremental entry capacity.

109 Incremental entry capacity can be either:
- funded incremental obligated entry capacity: normally satisfied through the provision of new infrastructure, although contractual alternatives may be sought that will provide a lower cost means to facilitate the input of gas to the NTS; or
- non-incremental obligated entry capacity: satisfied through entry capacity substitution from another entry point.

110 Hence the release of incremental entry capacity can have a range of impacts, e.g. increased capability in the NTS, decreased capability at specific locations. This means that exit capacity baselines could be revised downwards as well as upwards following the release of incremental entry capacity. National Grid believes that this is not the original intent of the revision obligation, which was to recognise that new infrastructure, driven by entry capacity signals, also creates a benefit in terms of exit capability. Hence National Grid is considering applying exit capacity revision only where the entry capacity released is funded incremental entry capacity.

111 As noted above, the release of funded incremental entry capacity does not necessarily mean that National Grid will invest in new infrastructure. National Grid is encouraged to seek alternative solutions to investment. Primarily this means contractual solutions where, to enable gas to be input to the NTS, National Grid may contract with other Shippers to decrease flows at adjacent ASEPs or to increase them at nearby offtake points. In these cases the contracts are specifically structured to meet the incremental entry capacity request and there will be no associated exit benefit[9]. Alternatively, National Grid may assess that to accept the risk of an increase in entry capacity buy-backs is the most economic solution. In this case neither investment nor contracts will be put in place. Hence exit capacity revision will only apply where investment in new infrastructure occurs.

112 It should be noted that the original Licence obligation included revision to NTS exit flow flexibility. However, flow flexibility now falls outside the scope of the Licence obligation and is excluded from this methodology statement.

II. Do you agree that exit capacity revision should only apply to the release of funded incremental obligated entry capacity where investment has been made in new infrastructure?

4.1. Process Timelines

113 National Grid has presented views on how exit capacity revision can be applied and has stressed that the key criterion for creating exit capacity is the provision of entry flows. The provision of new pipework does not necessarily create exit capability unless additional gas flows in response to the increased capacity allocation.

114 The nature of gas input sources is changing from UK continental shelf supplies providing reliable constant flows to more intermittent flows from LNG and storage facilities and interconnectors. Whilst this change is a key factor in driving change to the capacity

[9] This does not exclude the possibility of exit specific contracts being pursued.

regime through substitution and revision it also presents difficulties in implementing exit capacity revision.

115 When new infrastructure is provided in response to an incremental entry capacity request National Grid cannot assume that the entire new infrastructure will be fully utilised all the time. For example:

- At periods of high demand LNG facilities may be unable to maintain high input rates if supplies are diverted, in response to price signals, to other locations;
- The changing nature of storage operations may mean that they are offtaking gas at times of relatively high demand and so, with no additional entry flow, exit capability is reduced rather than increased.

Hence the exit benefit of entry investment can only be assessed after the certainty of gas entry flows has been demonstrated.

116 As a result of flow uncertainty National Grid is considering normally applying exit capacity revision only after flow certainty has been demonstrated. This means that for an incremental entry capacity signal received in QSEC March 2011 for entry capacity release at October 2014, flows are likely to have been demonstrated by March 2016. Exit capacity baselines can then be adjusted as appropriate in the summer as part of the post-July application analysis.

117 Under this arrangement the additional NTS exit flat capacity can be obtained as Enduring Annual NTS Exit (Flat) Capacity from October 2019. However, it will be available as Annual or Daily NTS Exit (Flat) Capacity in the period October 2016 to September 2019.

118 Where incremental entry capacity is provided and there is no doubt regarding certainty of flows, or a minimum flow rate is assured, then National Grid may be able to apply exit capacity revision in the August following the relevant QSEC auction to the extent that National Grid considers flow to be certain.

mm. Do you agree with National Grid's proposal that exit capacity revision should be applied only when reliable gas flow are established and/or can be confidently assumed?

nn. Is there an alternative that could allow revision to be applied earlier following entry capacity release in the QSEC auction?

4.2. Recipient NTS Exit Point

119 The Licence defines exit capacity revision as "the process by which the level of NTS baseline exit flat capacity is modified". This reference to baseline ensures that exit capacity revision revises the obligation on National Grid to make capacity available.

120 When considering how to apply exit capacity revision a process for the identification of the recipient NTS Exit Point, i.e. the location where the NTS baseline exit flat capacity is to be revised, is required. However, it is National Grid's intention to create a notional exit point near to the relevant ASEP.

121 The notional exit point shall serve two functions only. It shall:

- be the recipient exit point in respect of exit capacity revision;
- be a donor exit point in respect of exit capacity substitution.

122 Exit flat capacity at a notional exit point shall be utilised by substitution to meet incremental exit capacity requirements at actual NTS Exit Points. This may be in the same year as the notional exit point is created or in a later year.

123 National Grid believes that the creation of notional exit points simplifies the methodology and makes it more transparent.

124 From a User perspective, the order of recipient NTS Exit Point selection and / or the use of notional exit points are immaterial because the incremental exit flat capacity requested will be released irrespective of any revision to the NTS baseline exit flat capacity. The primary aim should be to reduce the cost of any residual investment; i.e. the same aim as for substitution.

125 Alternatively, revising the baseline at a specific NTS Exit Point would require prioritisation of recipient NTS Exit Points. The most distant downstream NTS Exit Point may seem a logical first recipient NTS Exit Point as it is the extremes that ultimately dictate requirement for investment. However, an increase here would be smaller than for a more local NTS Exit Point. National Grid believes that there would be little advantage in revising the baseline at one NTS Exit Point over another, hence the proposal to use the notional exit point and the subsequent application of the substitution methodology as a simple transparent process.

126 The issues regarding partial investment, discussed in respect of substitution (see section 3.3) would also apply in respect of any increment partly satisfied through revision of the baseline. However, this issue would be irrelevant (for the revision process) if notional exit points are used. Hence, as discussed in section 3.3, if notional exit points are not used, rules may be required such that revisions will not be applied to particular NTS Exit Points if this was to create issues regarding partial revenue drivers.

127 It is likely that some entry capacity projects create more exit capability than is needed to satisfy all incremental exit flat capacity requests[10]. In these situations a location is needed to temporarily place the capacity created and a notional exit point would appear the logical solution.

128 The linkage in the Licence between revision and baselines suggests that an existing NTS Exit Point is required at which the NTS baseline exit flat capacity is increased. However, National Grid believes that it is better to create a notional exit point adjacent to the relevant ASEP.

129 After accounting for any capacity revisions (including substitutions from a notional exit point) where incremental exit capacity is needed, any remaining capability can be placed at this notional exit point. This quantity can be publicised and would be used in respect of any future exit capacity requests by substituting from the notional point to the incremental location. Hence, as the notional exit point is a temporary step in the process to modify NTS baseline exit flat capacity at one or more NTS Exit Points, it is National Grid's view that it would not be inconsistent with the Licence.

130 National Grid believes that a notional exit point has a number of advantages over using an existing NTS Exit Point. These include:

- Provides a simpler, more transparent process;
- Avoids creating potentially false belief in the offtake capability at the existing NTS Exit Point if the revised baseline exceeds the MSPOR;
- Provides transparency that exit capacity has been created;
- Distinguishes from existing unallocated capability so that existing is allocated first;

[10] Excluding any remote NTS Exit Points with incremental exit capacity requests where no benefit can be gained from the entry capacity reinforcement works.

- Signals to all Users that the revised capability is available at any (subject to substitution processes) NTS Exit Point.

131 In practice capacity would be used to satisfy an incremental exit flat capacity requirement in the order;
- existing unallocated capability,
- substitution from notional points,
- substitution of unsold baseline from actual NTS Exit Points,
- investment (or contract).

132 In practice additional exit capability created as a result of entry driven investment will be utilised in the sequence;
- Allocated to meet actual incremental exit flat capacity requests, potentially via temporary (substitution occurs in same year) residence at, and substitution from, a notional exit point.
- As exit flat capacity located at notional exit points.

oo. Do you agree with the proposal that notional exit points should be created as the only recipient exit point for exit capacity revision?

pp. If notional exit points are not used as suggested, how should recipient NTS Exit Points be selected?

qq. Irrespective of question oo, do you agree with the principle of creating a notional exit point for unallocated exit capability?

rr. Would the use of notional exit points require a Licence change?

5. Additional Issues for Consideration

5.1. Spare Capacity

133 The NTS has been designed to accommodate the requirements of Users to input and offtake gas. To meet increasing demand or demand at new locations National Grid has invested to provide system capability where it is required. Consistent with the Licence, this investment must be economic and efficiently incurred.

134 Changes in the location of gas supplies, increased storage facilities, and demand variations have all contributed to the need for new infrastructure. However, these factors may also create unallocated capability where there are decreasing supplies or demands, or due to the marginal over-sizing of new infrastructure. There is potential therefore, at any given time, at various locations, for there to be unallocated system capability, or "spare capacity".

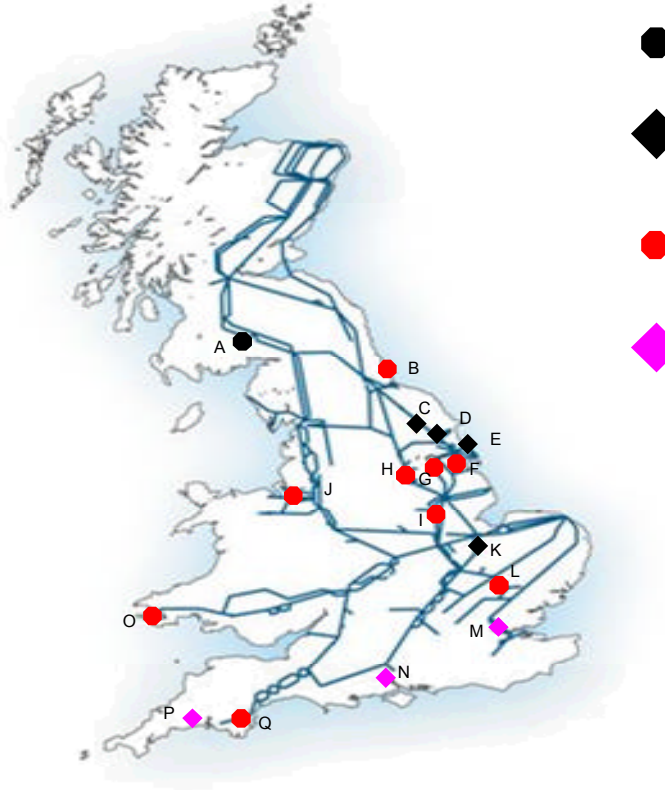
135 Throughout the exit capacity substitution workshops National Grid has been asked to quantify the level of spare capacity on the NTS. This would identify a basis upon which substitution is built. Participants have suggested that the quantity of spare capacity is needed to provide a transparent process whereby any incremental capacity released could be compared against the stated spare capacity to assess the level of reduction of NTS baseline exit flat capacity that might be required through substitution.

136 However, the quantity of unallocated capability varies according to supply and demand assumptions and the capacity and pressure obligations at entry and exit points. Hence it can only be determined at a point in time. The interaction between locations on the NTS means that there are also a number of answers to the same question, e.g. if spare capacity is maximised in Northern areas there will be less capability in the more central areas than if it is the central areas where spare capacity is maximised. In addition there is a relationship between flat capacity and flexibility. If unallocated capability is quantified as flat capacity this would limit the amount of flexibility available. If DNO Users are allocated more NTS Exit (Flexibility) Capacity the quantity of spare flat capacity may be reduced. For these reasons National Grid identifies spare capacity, and allocates it, in response to specific requests for incremental exit capacity.

137 National Grid is proposing that this should continue so that substitution is only applied after any unallocated system capability is used.

138 In order to provide guidance as to where unallocated capability may be National Grid has provided data on 2009 incremental capacity releases (see diagram and table below) showing where incremental exit flat capacity has been released without the need for a revenue driver (i.e. National Grid did not seek additional funding). These locations show where there was spare capability at the time of the 2009 analysis. Similarly, the locations where a revenue driver was required indicate where there was no spare capability. These locations are all at the Southern extremities of the system where the network is constrained.

Incremental Capacity released in July 2009



Inter-connector - no revenue driver

Storage – no revenue driver

Power station – no revenue driver

Power station with revenue driver

Map location	Exit Point	Incremental capacity kWh/day	Revenue Driver
A	Moffat	95,078,028	No
B	Teesside Hydrogen	28,400	No
C	Hornsea	22,359,585	No
D	Garton (Aldbrough)	114,500,000	No
E	Rough	210,479,121	No
F	Stallingborough	1,512,169	No
G	Thornton Curtis (Killingholme + Humber Refinery)	29,890,000	No
H	Blyborough (Cottam)	1,760,000	No
I	Staythorpe	5,760,000	No
J	Weston Point (Rocksavage)	2,650,000	No
K	Caythorpe	75,000,000	No
L	Epping Green (Enfield Energy)	1,190,000	No
M	Stanford-le-Hope (Coryton)	1,990,000	Yes
N	Marchwood	39,840,000	Yes
O	Upper Neeston (Milford Haven)	7,180,000	No
P	Langage	40,004,000	Yes
Q	Centraxx Industrial	85,000	No*

* A revenue driver was not required for Centraxx due to the small incremental quantity and interactions with Langage.

139 In addition, National Grid explained in workshop 3 how the Gas Transportation Charging Model can be used to identify the location of spare capacity.

140 It is possible to add a new NTS Exit Point to the model with proposed incremental flows. If, after balancing gas supplies at the next supply group, there is little or no change to the flow rates in that location (the model shows flow rates on individual parts of the network) then there is a likelihood of spare capacity being available.

141 The charging model is available from National Grid.

142 Section 6 details the examples presented in workshop 4. These identify the North East region as containing significant amounts of spare capacity, whereas, depending upon the gas supply assumptions, the South East is constrained.

5.2. Entry Capacity Revision

143 The question was raised at workshop 2 whether National Grid would be proposing "Entry Capacity Revision", i.e. looking to revise entry capacity baselines in response to exit driven investment.

144 National Grid is not expecting to make any proposal along these lines in the short term as there is no obligation in the Licence to do so. Although this may be considered in future, the benefits are likely to be minimal due to the relative size of incremental entry / exit capacity releases and entry / exit investment projects.

5.3. Movement of Sold Capacity

145 National Grid has also been asked to consider whether substitution could be applied to capacity that has been sold; or more particularly, to capacity to which a User Commitment applies.

146 This request primarily seeks to avoid the User Commitment by transferring capacity to another NTS Exit Point. For example:

- DNO User has 100 units of capacity at NTS Exit Point A and 50 units at NTS Exit Point B;
- A User Commitment applies at A;
- There is a decrease in demand at A to 75 units and an increase to 75 units at B;

The DNO User would like to substitute 25 units of capacity from A to B. A User Commitment would apply at B for 75 units. However, User Commitment rules would normally prevent a reduction request at A, leading to unnecessary investment for the increment at B.

147 National Grid believes that there is merit in the proposal. However, as this scenario falls outside the scope of the Licence obligation we believe that attention should not be diverted from the primary tasks of exit capacity substitution and revision. This issue could be reviewed at a future date.

5.4. User Commitment

148 For the avoidance of doubt a User Commitment will apply as specified in the ExCR methodology statement.

149 Where additional capacity is allocated to a User, whether this is existing NTS baseline exit flat capacity or NTS incremental exit flat capacity a User Commitment will apply except where stated in the ExCR methodology statement. Incremental exit flat capacity requests satisfied through substitution will not be excluded from User Commitment.

6. Worked Examples

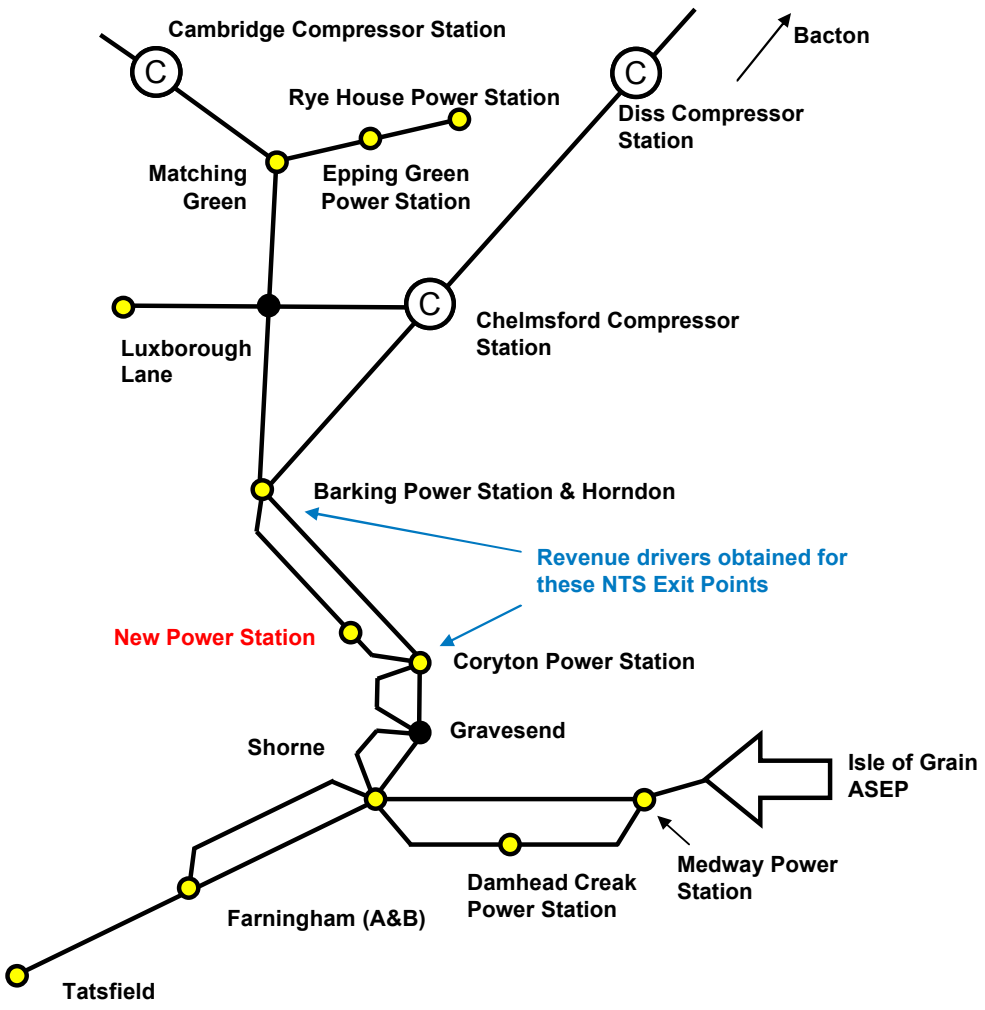
150 This section reproduces an example from workshop 4 which shows the possible effects of the release of incremental exit capacity in the North East and South East which may be satisfied through exit capacity substitution. For further details on the analysis assumptions please refer to the workshop presentation.

6.1. South East Example

151 This example considers a new power station connecting to the NTS at a new NTS Exit Point near to the south east extremity of the system. The new NTS Exit Point is established in the Licence with baseline of 0 GWh/d.

152 A request for 50GWh/d Enduring Annual NTS Exit (Flat) Capacity is signalled during the July 2010 Application Window for release from October 2013. The capacity is released in accordance with UNC and the ExCR methodology statement.

153 The diagram below illustrates the network in the South East showing the location of the proposed new power station, other NTS Exit Points and other important features.



154 National Grid uses supply scenarios to assess changes to exit capacity levels. These scenarios focus on local supply sensitivities and conditions that are known to exist on the NTS. For example, supply scenarios may be developed to explore the conditions on a part of the network when:

- a) Gas flows are assumed, or
- b) Gas flows are uncertain and cannot be assumed to be present.

In the case of the South East, National Grid considers scenarios centered on levels of flows from the Isle of Grain LNG facility. This example considers two Isle of Grain flow scenarios.

6.1.1. Potential Savings from Exit Capacity Substitution

155 This section assesses the costs likely to be incurred as a result of the new power station in the absence of exit capacity substitution. This will, therefore, equate to the maximum benefits that substitution can achieve. In this scenario, the more realistic, low Isle of Grain flows are assumed.

156 Analysis shows that to support the new power station load and existing commitments at other NTS Exit Points would require network reinforcement. Approximately 43km of pipeline and significant compressor station modifications would be required at an approximate cost of £100m.

157 A revenue driver is not available for the new power station but as an approximation the revenue driver can be assumed to be the same as for Coryton.

- Coryton revenue driver is for an increment of 46.2 GWh/d;
- Coryton is located adjacent to the new power station;
- Hence assume new power station revenue driver for increment 50 GWh/d is £129,552/GWh/d (Coryton value).

158 Hence potential savings resulting from exit capacity substitution for this example would be in the region of:

- £6.5m/yr (plus indexing) for five years from non-application of the revenue driver.
- Allowed rate of return on £100m investment from year six (assuming the Authority deem the investment to be efficiently incurred and allow its inclusion in the regulatory asset base).

6.1.2. South East Example: Low Isle of Grain Flows

159 National Grid believes that this scenario is the most realistic as it is based on analysis of historical actual flows at the Isle of Grain ASEP. A statistical minimum, based on flows experienced on high demand days, has been used. As further phases of the Isle of Grain facility are established and consistent flows experienced, higher flows may be assumed for future analysis.

160 Under this supply scenario the level of “north to south” flow in the NTS feeders need to be significantly higher as the Isle of Grain flows are insufficient to meet total local demand; hence pressure drops through the system are increased. As a result, Assured Offtake Pressures cannot be supported at the system extremity given the addition of the incremental exit capacity procured at the new NTS Exit Point, even with compressors operating at maximum capability. Thus with this level of entry flow at Isle of Grain network investment and/or exit capacity substitution is required to support the release of the additional NTS Exit (Flat) Capacity at the new power station.

161 The quantity of unsold NTS baseline exit flat capacity at NTS Exit Points in the South East area is as shown below.

NTS Exit Point	Location	Unsold quantity: GWh/d
Tatsfield	Downstream	56.075
Farningham	Downstream	38.306
Shorne	Downstream	17.942
Barking Power Station	Upstream	7.3178
Horndon	Upstream	8.2292
Luxborough Lane	Upstream	56.025

162 In accordance with initial proposals substitution has been considered from the furthest downstream NTS Exit Point first.

163 Analysis shows that a decrease in the NTS baseline exit flat capacity at Tatsfield of 32.46 GWh/d is sufficient to support the new power station load of 50 GWh/d. Notwithstanding the possibility of an exchange rate collar, this gives a capacity exchange rate of 0.649:1.

164 As a further demonstration of the effect of exit capacity substitution analysis was repeated with the sold capacity at all downstream NTS Exit Points assumed to equal the baseline level. In this scenario substitution from upstream NTS Exit Points is assessed.

165 Analysis shows that by decreasing the NTS baseline exit flat capacity at the three upstream NTS Exit Points by the maximum quantities available (see table above) only 46.298 GWh/d can be supported at the new power station. This gives an overall capacity exchange rate of 1.546:1, or 1.79:1 for Luxborough Lane and 1.025:1 for Barking/Horndon.

166 To enable 50 GWh/d to be released at the new power station the remaining 3.702 GWh/d needs to be satisfied through investment (and/or contract) at an approximate cost of £3m. It should be noted that due to the small amount of partial investment it may be necessary to “undo” some of the proposed substitution so that the residual investment can be undertaken in an economic and efficient manner, i.e. identified reinforcement projects are economic.

6.1.3. South East Example: High Isle of Grain Flows

167 National Grid does not have sufficient experience of high level flows at Isle of Grain and believes that this high flow scenario is currently unrealistic. However, it is presented to demonstrate possible outcomes.

168 With the high levels of entry flow at Isle of Grain compressors that are usually required to support Assured Offtake Pressures are not required to be operating. The Assured Offtake Pressures can be supported even with the addition of the incremental capacity at the new NTS Exit Point.

169 This supply scenario demonstrates that high Isle of Grain gas flows reduce network constraints in the South East. Increased exit capability generated by the certainty of gas entry flows would remove the requirement for investment and/or exit capacity substitution to support the release of the additional NTS Exit (Flat) Capacity. Hence in this scenario 50 GWh/d of capacity can be added to the NTS baseline exit flat capacity at the new

NTS Exit Point through entry capacity revision, i.e. when Isle of Grain flows have been demonstrated consistently.

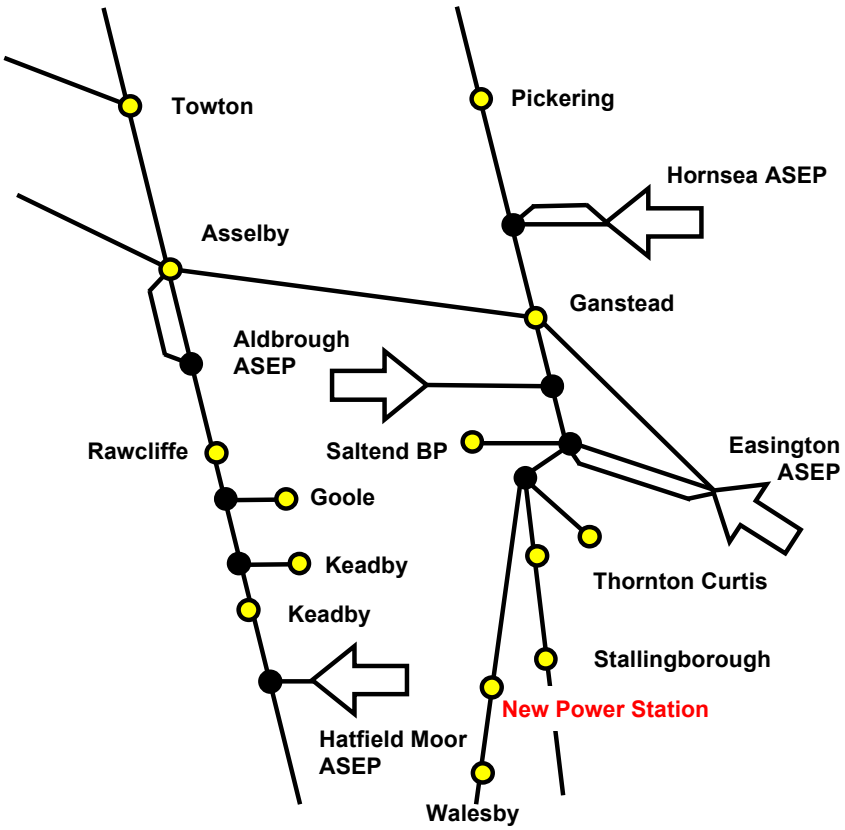
170 With the high levels of entry flow at Isle of Grain Assured Offtake Pressures can be supported, without the need for investment/substitution even with the addition of incremental capacity at the new NTS Exit Point up to a level of approx 300 GWh/d, i.e. 50 GWh/d at the new power station plus 250 GWh/d at a notional Isle of Grain exit point.

6.2. North East Example

171 This example considers a new power station connecting to the NTS at a new NTS Exit Point near in the north east close to the Easington ASEP. The new NTS Exit Point is established in the Licence with baseline of 0 GWh/d.

172 A request for 50GWh/d Enduring Annual NTS Exit (Flat) Capacity is signalled during the July 2010 Application Window for release from October 2013. The capacity is released in accordance with UNC and the ExCR methodology statement.

173 The diagram below illustrates the network in the north east showing the location of the proposed new power station, other NTS Exit Points and other important features.



174 Potential net gas supply in this area is much larger than the local demand due to:

- the presence of a number of existing large ASEPs which are currently not forecast to decline, and
- high transmission capability in the area as a result of recent entry driven system reinforcement and significant local compression (not shown on the diagram).

175 As a result the main issue in this area is the network's ability to transport gas away; hence additional loads in this area have a beneficial effect. Therefore, based upon the size of the incremental capacity signal, analysis to consider differing supply scenarios would not be required as there is sufficient capability within the system to accept the new load without network reinforcement or exit capacity substitution.

176 In this example the new load is supported by existing system capability. Exit capacity substitution is not required and provides no benefit to the industry and consumers.

7. Summary

177 Section 1 of this consultation document provides the background to the development of exit capacity substitution and revision. It provides links to relevant documents, in particular workshop presentation material. In addition information is provided on the potential financial benefits of exit capacity substitution.

178 Section 2 looks at the criteria used in analysis of substitution and revision opportunities whilst section 3 discusses a number of issues raised during the workshops. Some of these issues proved more contentious than others. A number of possible approaches to these issues are presented and views sought.

179 Section 4 describes the proposed scope and methodology for exit capacity revision together with some issues specific to capacity revision.

180 A number of issues not directly related to the methodology have been raised and discussed at workshops. For completeness these are covered in section 5. Although no specific questions have been raised on these topics respondents may wish to add relevant comments in their responses.

181 Finally, section 6 presents examples of how exit capacity substitution may be applied. This was initially presented at exit substitution workshop 4. A summary is provided in section 1.

182 Accompanying this consultation document is a draft methodology statement. This draft is based on National Grid's current view, but also includes elements that may not be preferred by National Grid. These additional elements have been included to illustrate how specific issues might appear, if supported, in later proposals.

183 Through the series of workshops National Grid has explored a range of options for exit capacity substitution and revision in conjunction with the industry. We believe that a "simple" approach favoured by workshop participants, and the approaches proposed for the issues raised, are consistent with Licence obligations, and in particular the substitution and revision obligations. Based on the feedback provided by market participants and discussions with Ofgem, we will submit an Exit Capacity Substitution and Revision Methodology Statement to Ofgem following formal consultation, by 4th January 2011. It is anticipated that exit capacity substitution and revision will be applied from July 2011. We are currently intending to undertake the formal consultation starting early November 2010.

8. Questions for Discussion

8.1. Responses

184 National Grid would appreciate views from industry participants on the issues discussed in the previous sections, particularly if alternative solutions can be identified. Specifically National Grid seeks opinions on the questions raised which are reproduced below for convenience.

185 Respondents should not limit their comments to the specific questions. However, it would aid analysis if responses followed the question sequence where practicable. National Grid encourages respondents to raise any additional issues that require consideration prior to implementation of a substitution and revision methodology.

186 Responses should be sent to National Grid to arrive no later than 17:00 on 6th August 2010. Unless marked confidential responses will be placed on the National Grid website.

They should be sent by e-mail to:
box.transmissioncapacityandcharging@uk.ngrid.com.
And copied to lesley.ramsey@uk.ngrid.com

Please include a "read receipt" to confirm delivery.

Alternatively they can be sent by post to:

Lesley Ramsey
National Grid
Transmission Commercial
NG House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

8.2. Consultation Questions

Section 2: The Exit Capacity Substitution and Revision Methodology

a. Are there any other factors that National Grid should consider in the analysis of exit capacity substitution and revision opportunities?
b. Are there any aspects of the analysis that should be excluded or amended?

Section 3.1: Substitutable Capacity

c. Is this definition of Substitutable Capacity appropriate? If not, why not?
d. Bearing in mind other issues raised in this consultation document, are there any additional factors that should be included to limit the definition of Substitutable Capacity? If so, please justify such inclusion.

Section 3.2.1 DN Flow Swapping

e. Do respondents agree that the risk presented by exit capacity substitution to DNOs' ability to flow swap is not significant? If not, please quantify.

f. Are special arrangements that would exclude some/all DN offtakes from the scope of exit capacity substitution justified?
g. How would the DN offtakes to be excluded from exit capacity substitution be identified?

Section 3.2.2 Interruptible Sites

h. Is National Grid's assessment of the risk to off-peak / interruptible gas flows correct? If not, what have we failed to include and what are the implications?
i. Are special arrangement that would exclude NTS Exit Points using interruptible capacity from the scope of exit capacity substitution justified?

Section 3.2.3: Interconnectors

j. National Grid would like respondents' views of the development of European Regulations, and specifically Article 16 of Regulation (EC) 715/2009. Is National Grid's interpretation of the Regulations correct? Is National Grid correct in stating that existing processes comply with the Regulations as envisaged?
k. Are special arrangements that would exclude interconnectors from the scope of exit capacity substitution justified? If yes, what is the justification and should this be a permanent or temporary feature?

Section 3.3: Partial Substitution

l. National Grid would welcome views on whether substitution should only be applied where the whole incremental quantity can be satisfied through substitution or whether partial substitution is preferred.
m. Do you think that partial substitution is an added complexity that is disproportionate to the potential benefits?
n. Would respondents accept a delay to capacity allocations and release (subject to a UNC modification) pending agreement of partial revenue drivers if banded revenue drivers are not available?

Section 3.4: Donor NTS Exit Point Selection

o. National Grid would welcome views on its proposals for selection of donor NTS Exit Points.
p. Do respondents agree that selection on the basis of same pipeline first is appropriate?
q. Do respondents agree that selection on the basis of downstream donor points first is appropriate?
r. Should any other criteria be considered?
s. Bearing in mind their indicative nature, does the flow direction diagram add value to the methodology?

Section 3.5: Process Timelines

t. Would you be in favour of a change to the Licence removing the Authority's right to veto substitution proposals put forward by National Grid?
u. Would you support a UNC modification proposal that seeks to remove or limit the additional application processes for DNOs following closure of the July application window?
v. Are there any other alternatives that could be considered that would extend the available time for analysis of substitution opportunities?

w. Do you support National Grid's proposal to not make available capacity, which may be subject to substitution away from an NTS Exit Point, from sale until the Authority's decision on substitution proposals is known?
x. What alternatives are available to manage the uncertainty of capacity availability for ad-hoc / ARCA applications during the Oct-Dec period?
y. Is it appropriate to cover such arrangements in the exit capacity substitution methodology statement or should it be specified in the ExCR methodology statement and/or UNC?

Section 3.6: Exchange Rate Cap

z. Should the exit capacity substitution methodology use an exchange rate cap to limit the impact of substitution on donor NTS Exit Points?

If an exchange rate cap is used:

aa. At what level should the exchange rate cap be set?
bb. Notwithstanding that National Grid is obliged to review the substitution methodology on an annual basis, should the exchange rate cap be set initially at a low level in the expectation of being revised / increased in future years?

Section 3.7: Exchange Rate Collar

cc. Should the exit capacity substitution methodology use an exchange rate collar to simplify the analysis of substitution proposals?

If yes:

dd. Is a collar set at 1:1 appropriate? If not, what alternative level should the collar be set to?

If no:

ee. What alternatives / simplifications could be considered for reducing the amount of analysis required?

Section 3.8: National Grid / Ofgem Discretion.

ff. Do you believe that National Grid should have discretion to deviate from the approved methodology where the methodology would result in clearly inappropriate substitution proposals?
gg. Do you believe that discretion should lie with the Authority to reject inappropriate substitution proposals?
hh. Do you agree that the Licence and Ofgem's statutory duties provide enough protection for the Authority to apply sufficient discretion to reject inappropriate substitutions?
ii. Do you agree that the methodology should allow discussions between Ofgem and National Grid to identify and eliminate inappropriate substitution proposals before they are submitted?
jj. Do you believe the Licence should be amended to make clearer the criteria by which the Authority will reject National Grid's substitution proposals? If so, what criteria should be included?

Section 3.9: Transitional Rules

kk. Do you believe that any transitional rules should be included for the initial exit capacity substitution methodology? If so, what areas should be covered?

Section 4: Key Issues with Exit Capacity Revision

ll. Do you agree that exit capacity revision should only apply to the release of funded incremental obligated entry capacity where investment has been made in new infrastructure?

Section 4.1: Process Timelines

mm. Do you agree with National Grid's proposal that exit capacity revision should be applied only when reliable gas flow are established and/or can be confidently assumed?

nn. Is there an alternative that could allow revision to be applied earlier following entry capacity release in the QSEC auction?

Section 4.2: Recipient NTS Exit Point

oo. Do you agree with the proposal that notional exit points should be created as the only recipient exit point for exit capacity revision?

pp. If notional exit points are not used as suggested, how should recipient NTS Exit Points be selected?

qq. Irrespective of question oo, do you agree with the principle of creating a notional exit point for unallocated exit capability?

rr. Would the use of notional exit points require a Licence change?