

**INTERIM REPORT ON THE DEVELOPMENT OF AN  
EXIT CAPACITY SUBSTITUTION AND REVISION  
METHODOLOGY**

April 2010

## 1. Introduction

National Grid Gas plc (“National Grid”) in its role as holder of the Gas Transportation Licence in respect of the NTS (the “Licence”) is obliged, in accordance with Special Condition C8E paragraph 4, to prepare an exit capacity substitution methodology statement and an exit capacity revision methodology statement which shall be applied for the purposes of fulfilling National Grid’s obligation in respect of exit capacity release (C8E paragraph 3(c)).

National Grid is also required to submit to the Authority, for approval, the statements referred to above.

On 23<sup>rd</sup> February 2009 the Authority Directed that National Grid should submit its proposed methodology statements no later than 4<sup>th</sup> January 2011. In its letter explaining the Authority’s reasons for agreeing to a delay to the implementation of the exit capacity substitution and revision obligations, Ofgem required National Grid to submit two interim reports, the first no later than 30<sup>th</sup> April 2010, on the progress towards preparation of the exit capacity substitution and revision methodologies, together with an assessment of our ability to ensure that implementation can be achieved to the revised timetable.

National Grid has prepared this report to meet the requirement set out above. It provides an update on progress to date and comments on the likely achievement of National Grid’s obligations to the revised timetable. Additional comments are provided on potential IT systems implications and other possible issues.

## 2. Timeline

To aid development of the exit capacity substitution and revision methodologies, and following previous work throughout 2007 to 2009 to develop an entry capacity methodology, National Grid arranged a series of workshops. At the Transmission and Distribution workstream meetings, held on 3<sup>rd</sup> December and 26<sup>th</sup> November 2009 respectively, National Grid presented a draft timeline (attached as appendix 1) for the development of a methodology that allowed comprehensive industry input whilst meeting the 4<sup>th</sup> January 2011 deadline.

The timeline provides two consultation stages. The formal consultation was scheduled for November 2010, over three months after the informal consultation closes. This was intended to provide sufficient time for responses to the informal consultation to be adequately considered and to allow for contingencies. National Grid believes that the informal consultation will not be available as initially envisaged and that it may be necessary to delay the start of the informal consultation until the latter half of June 2010. This is due to the proximity of workshop 4 to the intended informal consultation start date. Additional time to that initially planned will be required to produce the informal consultation document and draft methodology statement if due account is to be taken of workshop 4 discussions.

In addition to the informal and formal consultations on the proposed methodology, the timeline also shows when related developments (if necessary) could be progressed; e.g. UNC modification proposal, charging proposals. Excluded from the timeline is any Licence changes which it is expected would, if required, be initiated by Ofgem.

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National Grid has now hosted three workshops and will be hosting workshop 4 as originally scheduled. The fifth workshop has yet to be confirmed. We anticipate that the need for, and date of, this workshop will be confirmed at workshop 4 when the dates for the informal consultation should be clearer. However, should workshop 5 be required we expect this to be held late August / early September.

### 3. Workshops

Although National Grid is obliged to consult interested parties on its proposed exit capacity substitution and revision methodologies, there is no obligation to consult on its development. However, National Grid believes that a more efficient and acceptable solution can be achieved through industry engagement and proposed the series of workshops identified in appendix 1. These workshops fall outside of the existing UNC governance processes and are arranged and chaired by National Grid.

Workshop 1 on 27<sup>th</sup> January 2010 was the first in the series of workshops and set out to deliver two high level objectives:

Firstly, Ofgem provided a clarification of its expectations for an exit capacity substitution and revision methodology.

- Reference was made to the high level policy objectives:
  - Efficient use of network assets;
  - Avoid capacity sterilisation and unnecessary investment; and
  - Consistent and transparent decision making by National Grid when meeting incremental capacity requirements.
- Policy principles were developed from these objectives:
  - User commitment: securing capacity requires a financial commitment;
  - Efficiency: surplus or unsecured capacity must be considered for substitution; and
  - Transparency.
- Ofgem also referred to the Licence modification undertaken in 2009 in respect of the entry capacity substitution methodology statement and raised the possibility of a similar change for exit capacity. This change clarified the substitution objectives in the context of further obligations on National Grid to operate an economic and efficient system.

Secondly, National Grid reviewed the substitution and revision obligations and objectives as stated in the Licence and examined the scope for exit substitution and revision to deliver customer benefits.

- Reference was made to the drivers for entry substitution and compared to the exit market;
- Data was presented on the relative investment at entry and exit.

The workshop concluded that the potential materiality of the benefits from exit substitution and revision are not as great as for entry. There was general agreement at this workshop that the complexity of the proposed methodology should be proportionate to the potential benefits and that, where possible, a simpler methodology than the entry substitution methodology would be appropriate.

National Grid went on to analyse a number of potential issues. The most significant of these were:

- User Commitment: consensus was that capacity should be available for substitution unless it was sold;
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- DN flow swapping: after much discussion it was concluded that exit capacity substitution does not adversely affect DN flow swapping processes.
- Interruptible (“off-peak”) sites: it was concluded that exit capacity substitution would not affect the quantity of off-peak capacity available, because this quantity is not based on the baseline quantity. However, there may be an increased risk that capacity curtailment will be needed. This is because capacity substitution is likely to result in an overall increase in gas flows but without investment to create a corresponding increase in system capability:
  - Flows are likely to increase where the incremental exit capacity is released; but
  - Flows are unlikely to decrease at the exit point where baseline was unsold, and by implication, unwanted

This tightening, or more efficient use, of the system means that the system may become constrained at lower demand levels than would be the case in the absence of substitution, with the possible need to curtail off-peak flows.

- Exchange rate cap: it was acknowledged that as unsold capacity has no value a cap should not be applied. However, at workshop 3, a preference was expressed, by a number of attendees, for avoidance of “excessive” capacity destruction. A transitional rule setting a cap at 3:1, i.e. consistent with entry substitution, was suggested by those preferring a cap. Currently National Grid favours no cap. However, this issue is likely to feature in the informal consultation and National Grid may review its position dependant upon responses received.
- Process timelines: National Grid outlined concerns regarding the precise timing of exit substitution and revision analysis, its relationship to capacity release and substitution submissions to the Authority, the timing of their approval or veto and the impact on available capacity. These issues, illustrated in the timeline shown in appendix 2, have been explored further in later workshops and remain to be resolved.
- Special Sites: there was consensus that no special treatment should be given to specific classes of exit point (e.g. interruptible, DN offtakes). However, it was recognised that European legislation is being developed in respect of inter-connectors. This may require different treatment of Bacton IUK and Moffat exit points. The majority view was to monitor the situation and modify any proposals if and when necessary but that the principle of consistent treatment of all offtakes should otherwise apply. However, this view was not supported by all parties present.

At the second workshop on 23<sup>rd</sup> February 2010 National Grid provided a theoretical assessment of the potential impact of exit capacity substitution for two typical new power station loads. A summary of substitution discussions was provided.

At this workshop participants also sought further information on the level and location of spare capacity in the NTS. The reason for this being that some participant believed that, as spare capacity will be allocated before substitution, it is necessary to quantify spare capacity so that the trigger point for substitution can be identified and that this can be stated in the methodology statement. National Grid stressed the difficulty in providing this information and its limited value, being a valid assessment only at the time of the analysis.

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The third workshop on 7<sup>th</sup> April 2010 further developed the proposals discussed at earlier workshops. These initial proposals will be the basis for network analysis of two potential new power station loads in the Easington and Grain regions. The results of this analysis will be presented at workshop 4 on 25<sup>th</sup> May 2010. National Grid expects that these results will indicate the availability of spare capacity for these two scenarios and will demonstrate how spare capacity will be allocated before substitution and investment options are considered.

In addition National Grid presented further information on the availability of existing system capability ("spare" capacity) that was made available in 2009 before consideration of investment and a process, based on the charging model, that interested parties could use to determine the potential for spare capacity in specific locations.

Further information was requested on investment costs, to aid assessment of the potential benefits of exit capacity substitution, which National Grid is considering.

#### **4. IT Impacts**

National Grid has undertaken a preliminary assessment of the IT impacts of the potential exit capacity substitution and revision proposals. This assessment has involved discussions with the teams that manage the exit capacity application process and those working on the implementation of systems for exit reform. It considered whether existing system functionality, and that planned for 2010/2011 release, is sufficient to accommodate the possible proposals. The assessment has not involved discussions with, or studies by, Xoserve.

Due to the relatively simple nature of likely proposals for the methodologies, National Grid does not foresee IT issues being an impediment to the implementation of exit capacity substitution and revision provided that implementation is along the lines of the proposals previously outlined. National Grid believes that there may be issues with regard to the management of capacity reserved under an ARCA or in the determination of available capacity pending assessment and approval of substitution proposals. Further investigations into these potential issues are being undertaken. Although it may be efficient in the longer term for some systems work to be undertaken to totally automate the process, we believe existing functionality can be used to facilitate the introduction of exit capacity substitution.

As systems testing of exit reform changes progresses further issues may be identified for which IT development may be required. National Grid is monitoring testing activities for any such issues. In the event that issues are identified that may require systems changes National Grid will then discuss requirements with Xoserve to identify costs and implementation lead-times.

#### **5. Other Issues**

##### **Licence Changes.**

Ofgem raised at workshop 1 the possibility of a Licence change, as was undertaken for entry substitution, to clarify the scope for the Authority to veto exit capacity substitution and revision proposals. Participants have been reassured by statements from Ofgem that the Authority has sufficient powers to veto proposals even where these proposals are consistent with the approved methodology. However, a firm decision on such Licence changes has been deferred.

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As with entry capacity substitution, additional Licence changes may be required: to facilitate the implementation of exit capacity substitution and revision, i.e. to ensure that the Licence allows sufficient time for Ofgem to undertake an Impact Assessment between National Grid's submission of the methodology statements and the Authority's approval/veto. These changes should, if deemed necessary, be developed by Ofgem and will not be progressed by National Grid.

### **UNC Modification Proposals**

The exit capacity substitution and revision methodologies, in the form currently envisaged, do not alter exit capacity application and allocation processes. Hence, National Grid believes that implementation will not require modifications to UNC. Should it prove necessary to treat different classes of exit point in different ways, it is anticipated that this can also be managed within the methodology without impacting UNC.

### **Charges**

Consistent with current proposals, National Grid does not envisage any new, or modified, charges being required to implement exit capacity substitution and revision.

### **European Issues**

As discussed in section 3, work is progressing at a European level to develop regulations that ensure the free flow of energy across state boundaries. Due to the nature of connected operations, any possible impacts of substitution are likely to be of greater concern at Moffat interconnector. However, the new regulations could have implications for the exit capacity substitution methodology at both Moffat and Bacton.

Concern has been raised at workshops that exit capacity substitution could damage downstream (of Moffat) operators' ability to meet their statutory obligations and that consideration should be given to treating this exit point differently.

National Grid's current position is that all exit points should be treated equally unless a robust case is put forward. National Grid believes that excluding interconnectors from substitution in advance of any clarity on European regulations could be seen as undue discrimination. In addition, Users can mitigate against any perceived risks, at any NTS exit point, by buying enduring exit capacity (or not reducing their current initialised quantities). However, this issue will be reviewed before final proposals are made.

### **Further Developments**

At workshop 2, two further issues were raised that, although falling outside the scope of the exit capacity substitution and revision obligations, may be considered as future developments.

#### *Substitution of sold capacity*

It would be beneficial, particularly to DNOs, if capacity at an exit point where it is not required could be moved to an adjacent exit point where incremental capacity is needed. The movement of capacity in this way would not remove the User commitment obligation, but could remove the need for investment, and a revenue driver. National Grid, believes that UNC and the Exit Capacity

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Release (“ExCR”) methodology already provides for the movement of capacity much as envisaged. For example:

- In the July window a User can reduce its capacity holding and this capacity will become available for substitution. However, this is subject to there being no outstanding User commitment on the capacity<sup>1</sup>.
- In respect of ad-hoc / ARCA applications National Grid may seek “ad-hoc” reductions<sup>2</sup> which would free up capacity for substitution so that investment can be avoided.

In both scenarios National Grid does not envisage Users being able to specify a donor/recipient exit point combination for substitution. National Grid expects to be able to identify the most efficient donor exit point from those available.

National Grid believes that there may be merit in developing proposals to facilitate substitution of sold capacity beyond that already available, but that this would add a level of complexity not justified in the initial exit capacity substitution and revision development phase.

#### *Entry Capacity Revision*

Entry capacity revision would be equivalent to exit capacity revision and would see entry point baselines revised as a result of incremental exit capacity release.

Whilst theoretically additional exit capacity (and reliable gas flows) may increase entry capability the practical benefits may be less apparent. For example:

- At bi-directional sites entry capacity bookings tend to precede exit capacity bookings;
- incremental exit capacity tends to be for smaller quantities; and
- much incremental exit capacity tends to be remote from entry points.

National Grid does not intend to develop proposals for entry capacity revision at this time.

## **6. Assessment of ability to achieve dates**

Whilst workshop participants have expressed doubts about the scale of benefits that the exit capacity substitution and revision obligations will deliver they have supported the development of a pragmatic, proportionate, solution. However, concerns have been raised around the increased uncertainty created by a tightening of the system which would reduce flexibility and the ability of the NTS to meet shippers’ and operators’ needs.

At this stage it is not clear whether National Grid will obtain significant support for the entirety of its potential proposals when it undertakes either the informal or formal consultations in the summer of 2010. However, options have been explored, all issues openly debated, and feedback has been acted upon.

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<sup>1</sup> User commitment rules are detailed in the ExCR methodology statement (v5.0 paragraph 67). See our website at: <http://www.nationalgrid.com/uk/Gas/Charges/statements/transportation/IEExCR/>

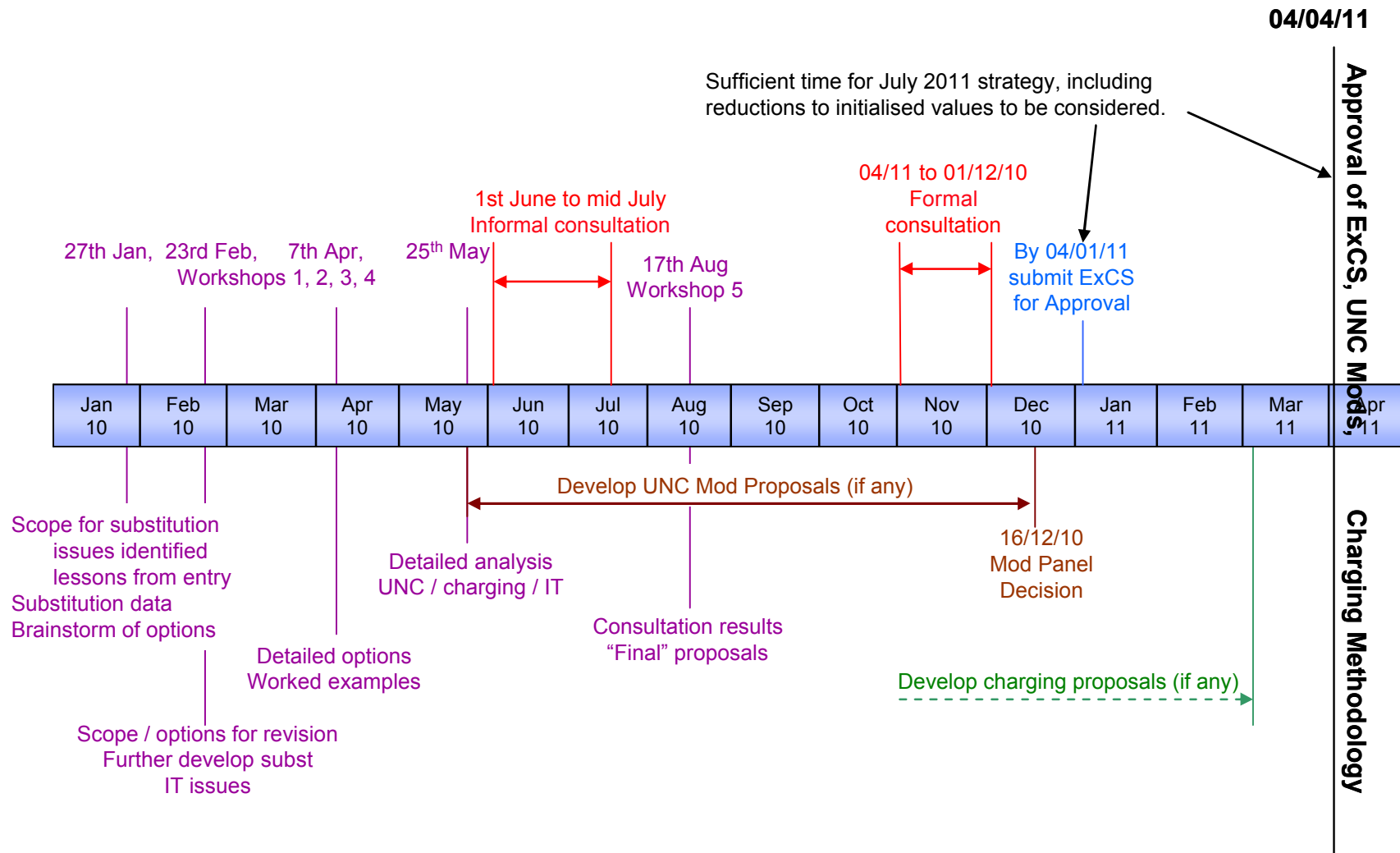
<sup>2</sup> See ExCR v5.0 paragraph 65.

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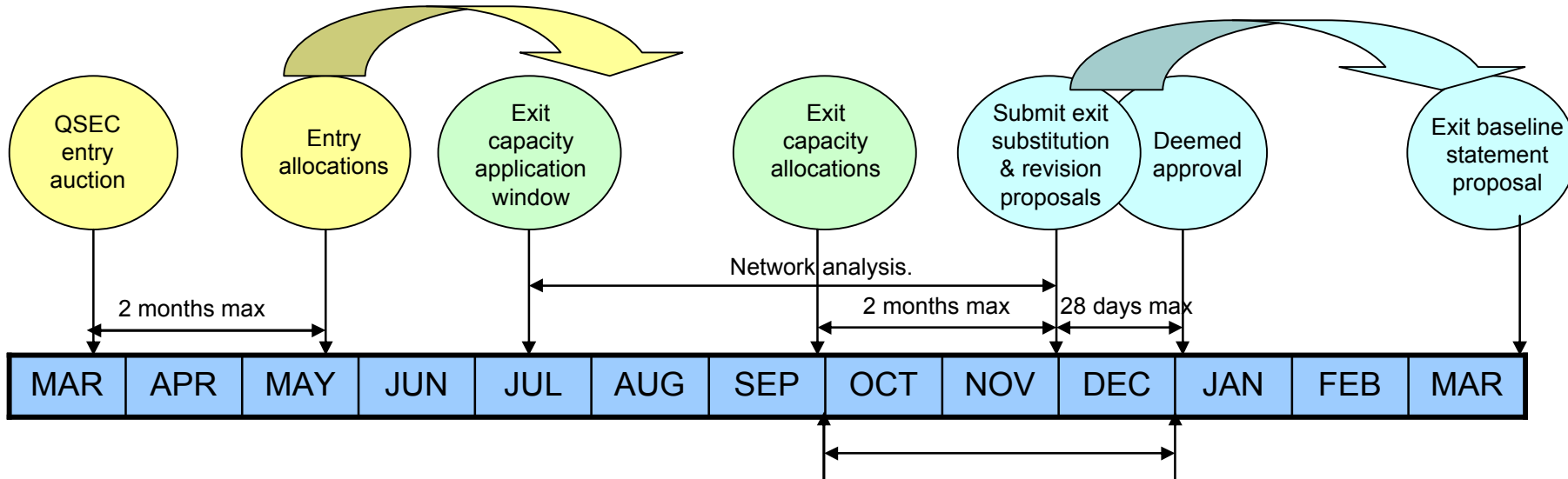
Notwithstanding that further work is required to develop exit capacity substitution and revision methodologies that meet the requirements of the Licence whilst providing mitigation against the legitimate risks identified by workshop participants, National Grid believes that it will be able to submit a proposed entry capacity substitution and revision methodology statement to the Authority for approval by 4<sup>th</sup> January 2011.



**Appendix 1 – Draft Timeline for Development and Implementation of Exit Capacity Substitution and Revision Methodologies.**



**Appendix 2 – Allocation and Substitution Timeline**



Substitutions unknown for up to 3 months after allocations made. Hence the capacity available for release in response to ad-hoc / ARCA applications is unclear.