Promoting choice and value
for all gas and electricity consumers

System Operator incentive schemes from 2013: principles and policy

Consultation - supplementary appendices

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Overview:

This paper sets out our proposed objectives, policy and principles for the regulation of the gas and electricity System Operators (SO) from April 2013. Our proposals are based on the RIIO (Revenue= Incentives + Innovation + Outputs) principles for regulating monopoly energy companies.

The RIIO principles encourage long term thinking through a clear, transparent and stable regulatory framework. To this end we intend to fix the central SO regulatory framework (objectives, principles and the overall policy) for a period of eight years, albeit acknowledging that changes to the SO's role may require development of the regulatory framework.

This document is a counsultation on our views on the SO regulatory framework, including the outputs the SOs will be required to deliver. These views were developed following consideration of the the current, and potential future, roles of the SOs, including where they overlap with the TOs' roles and the RIIO-T1 price control.

Context

The views set out in this consultation form part of our work to regulate monopolies effectively. We consider that it is important for both the electricity and gas markets that the role of the System Operator (SO) is correctly identified and that the SO has the appropriate tools available to it to undertake this role.

Any interventions in the market by the SO can lead to costs being incurred, both directly by the SO and more widely by the market. Since consumers ultimately bear these costs it is important to keep them as low as possible. The SO also has a wider role than its core balancing activities and we consider that it is important that the SO has the appropriate incentives to play a full role in delivering a sustainable energy system. Based on our experience over the past years, and building on our RIIO principles for regulating monopoly energy companies, we consider that the best way of achieving long term value for money for consumers is by providing the SO with commercial incentives within a transparent regulatory framework. These incentives work by giving the SO an opportunity to share some of the gains (or losses) from cost reductions (or increases) and also ensure the SO is rewarded (penalised) for delivery of well specified outputs.

This work builds on previous material published in both SO incentive schemes and RIIO-T1 documents. It is consistent with the RIIO-T1 Strategy Decision document published in March 2011.

Associated documents

- System Operator incentive schemes from 2013, 14 June 2011, Ref 77/11: http://www.ofgem.gov.uk/Markets/WhlMkts/EffSystemOps/SystOpIncent/Documents1/SO%20incentives%20from%20April%202013%20Inital%20Views%20Consultation.pdf

- National Grid Electricity System Operator Incentives from 1 April 2011, 10 June 2011, Ref 76/11 http://www.ofgem.gov.uk/Markets/WhlMkts/EffSystemOps/SystOpIncent/Documents1/National%20Grid%20Electricity%20Transmission%20SO%20incentives%20from%201%20April%202011%20FINAL.pdf

- Handbook for implementing the RIIO model, 4 October 2010 http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf.

- Decision on strategy for the next transmission price control – RIIO-T1, 31 March 2011, Ref46/11 http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1decision.pdf

- Initial assessment of RIIO-T1 business plans and proportionate treatment, 24 October 2011, Ref 136/11 http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/busplanletter.pdf

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Appendix 3 – SO-TO interactions

1.1. In both the gas and electricity sectors the SO and the TO will be making decisions about how best to deliver a sustainable energy sector at least cost for existing and future consumers. The decisions that the TO makes can have a knock-on impact on SO costs and SO output delivery over time. Similarly, the SO's decisions have an impact on the TO.

1.2. The TO and SO can have joint responsibility for delivering outputs that users of the system (customers) and end consumers care about. Examples are provided in Box 1 below.

1.3. In other cases it is costs that interact. SO external and SO internal costs are affected by TO decisions and TO costs are affected by the SO. We are most interested in those areas where there is potential for joined up decision making to result in lower costs for consumers relative to the impact of SO independent and TO independent decision making. Examples of SO-TO cost interactions are set out in Box 2 below.

Box 1: SO-TO interactions: examples of joint responsibility for outputs

- **Network availability –** Electricity network planning: the SO currently has a limited role in network planning, principally limited to preparing planning assumptions and documents outlining expected infrastructure. The TOs on the other hand plan and undertake the required network investment. Under current arrangements, the SO is not incentivised to promote network investment decisions that result in total least costs for consumer, except where investment impacts on short term SO costs. Thus, there are likely to be areas where network investment and planning could be more efficient if there was greater consideration of interactions or trade offs between SO and TO costs (part of a wider consideration of operating and capital investment choices).

- **Reliability and balanced electricity flows** – reliability: a fundamental concern that a consumer will have is the duration of an outage. As a generalisation, the SO has a role in re-energising cables following an outage while the TO has a role in 'fixing' the problem that initially caused the outage. Once the TO has addressed the identified concern it must then inform the SO that re-energising can occur. Effective communication between the SO and the TO is therefore fundamental to ensuring that reliability is addressed in a timely manner.

- **Connections in gas**: at entry and exit points shippers and suppliers want to be able to connect to the gas system for the amount of capacity they need and at the time they need. This will be an increasingly important issue as new LNG and storage facilities connect over the next few years. The time it takes to arrange a gas connection depends on the action of NGG as TO and SO. We are aware that there is a code modification being considered that reflects industry confusion about the process for connections and the lack of

clarity on timescales. Action taken by NGG, taking account of its SO and TO roles, could result in a more timely process for new connections.

- **Intermittent generation and the gas system**: as we move to a decarbonised electricity system, the demands on the gas system will change. The SO and TO will need to take joint responsibility for determining how best to ensure that the system is sufficiently flexible to deal with the intermittency associated with wind generation. This may involve network investment, increased SO internal costs and increased SO external costs if flexibility is provided by the SO contracting with market participants. Determining the appropriate solution, or mix of solutions, will require NGG to make joined up decisions between the SO and TO businesses.

Box 2: SO-TO interactions: examples of cost interactions

- **Electricity TO outage planning and SO constraint costs:** When an electricity TO amends its outage plans to reduce costs this can result in increased constraint costs for the electricity SO – costs which are passed on to the consumer. While this may seem a rational position for the TO perspective (as it incurs less costs by changing its plans), taking a holistic view this outcome may not be optimal. Indeed, there will be situations where the net costs incurred by the SO and TO as a result of the TO changing its plan is greater than the net costs incurred if the TO had not changed its plan. Put simply, by the TO not considering the impact of its decision on SO costs, the total costs to consumers are higher than they would have been the case with joined up decision making.

- **Electricity network planning**: An electricity SO, playing a full role, should consider the electricity system over the long term and should be able to identify where capacity should be expanded as the lowest cost way of reducing constraint costs over a ten year period. The electricity TO, under separate ownership from the SO, does not however have to consider this capacity expansion in its own business plans as it may have different priorities, it may be exposed to increased costs as a result and it may not reap any benefits from the reduced SO costs. Put simply, the lack of joined up decision making and therefore separate investment planning by the SO and the TO results in higher overall costs for consumers.

- **Gas investment in compressor stations:** the gas TO is considering whether to invest in a standard compressor or to invest in a more expensive but more fuel efficient compressor. Considering its own output and TO costs the TO would opt for the standard compressor. However, the SO costs would be reduced if the fuel efficient compressor was chosen. The total cost to consumers could be lower if the SO cost saving was greater than the difference between the two options from the TO cost perspective. There would also be an environmental benefit resulting from the reduction in fuel usage.

1.4. As discussed in our June 2011 paper we consider that SO-TO interactions can be categorised as either behavioural interactions or investment (capital expenditure) interactions. We focus here on how the TO may affect the SO and consider what we want the SO to do to take account of these interactions.

- **Behavioural interactions** involve situations where the SO costs or output decisions are affected by the TO changing it behaviour without needing to change investment plans, such as outage planning on a particular part of the network. Behavioural interactions are most likely to affect SO costs over the short run, although as many of these behavioural decisions can be repeated over time or across different parts of a network they may have a significant impact in aggregate. For example, if the TO were to change its overall approach to outage planning, rather than just making a change as a one off, this would have an incremental and ongoing impact on SO costs.

- **Investment interactions** arise when the SO costs are affected by whether, or not, the TO undertakes particular investment options. It is primarily capital investment decisions that are relevant although we recognise that under the RIIO model the TOs are being encouraged to consider capital and non capital solutions to output delivery. Going forward, depending on technologies, it may be both TO capital and operating investment choices that matter. With investment interactions it is more likely that SO costs are affected over the medium to long term, depending on how long the investment takes and over what time period any cost savings arise.

1.1. Both types of interaction are relevant for an SO that is playing a full role, considering options for delivering outputs and cost savings over the long term. These are current thoughts on the types of interactions that might be relevant. There may be others that we have not captured here. More importantly there may be others that have not yet been identified but that arise over time as the SOs and TOs tackle the challenges of delivering a sustainable energy sector. We expect the SO to adapt and take account of all relevant (up-to-date) information when considering, on an ongoing basis, how best to take account of SO-TO interactions.

Appendix 4 – Electricity outputs and output incentives

1.1. This appendix explores in more detail the electricity outputs outlined in Chapter 3.

Safety

Workplace safety

1.2. NGET (as both SO and TO) is required by legislation to design and operate its network to ensure the safety of the public and its employees. The Health and Safety Executive (HSE) monitors and enforces performance in this area as determined by legislation.

1.3. Under RIIO-T1, the primary output for NGET, including in its role as SO, is to comply with its legal safety requirements as set by the HSE. In the event of non compliance the HSE has a number of actions available to it to secure compliance with the law and to ensure a proportionate response to criminal activities.

1.4. Given the above we are not proposing to include any additional output requirements within the electricity SO regulatory framework with respect to this aspect of safety.

Operational safety: system voltage correct

1.5. The Grid Code requires that NGET as SO maintains the voltage of the electricity system within specific limits. Specifically, NGET is required to ensure that voltage is maintained at ±5% for 400kV ±10% for 275kV and 132kV lines. This is important from a number of reasons not least for safety objectives.

1.6. We recognise that this can be a complex task and that going forward this may become increasingly complex due to, amongst other issues, increasing levels of renewable energy (particularly wind) and embedded generation, together with a greater level of interconnection.

1.7. We consider that placing an incentive on NGET as SO with respect to the maintenance of voltage requirements within the required ranges may have merit. However, as noted above, NGET is required by legislation to design and operate its network to ensure the safety of the public and its employees and the HSE has a regime in place to penalise the company if it breaches its legal requirements. We also note that this aspect of NGET's performance will also be captured through the RIIO-T1 output measure outlined above. As such, our initial view is that we will not develop a separate output incentive scheme in the electricity SO regulatory framework.

Environmental impact

1.8. One of the overriding objectives of the RIIO regulatory framework is to ensure that energy companies play a full role in the delivery of a sustainable energy sector. We consider that this objective is equally appropriate for the SO.

1.9. To appropriately incentivise the SO with respect to the environment we have considered the incentives that have been identified for the TOs in RIIO-T1. The key areas of incentivisation that we consider appropriate are outlined below.

Broad environmental impact

1.10. We want to give the SO a vested interest in the achievement of the UK renewable and low carbon targets. We will therefore consider a broad environmental output incentive scheme for the SO. A broad environmental output is one that relates to how the SO is contributing to the delivery of a low carbon economy.

1.11. We consider that there are strong reputational incentives associated with the introduction of a broad environmental incentive. As such, we will consider a reputational incentive on the SO to effectively contribute to the broad environmental objectives that have been set within the UK and where relevant within Europe. We consider that this incentive could be for the full duration of the scheme (eight years).

Transmission losses

1.12. Transmission losses is an area where there are interactions between the roles of the TO and the SO. Under RIIO-T1, it was decided that due to the presence of a (financial) SO incentive to minimise transmission losses, no additional output incentive was required for TOs.

1.13. We consider that retaining the current financial transmission losses output incentive on the SO is appropriate. This incentive ensures that NGET as SO looks for ways to reduce transmission losses when procuring the services it needs to balance the system.

1.14. We are, however, minded to extend this financial incentive from its current two year duration. We consider that this will be possible as NGET is currently exploring mechanisms to improve its modelling of transmission losses[1]. Given the uncertainty associated with any new modelling, in addition to the scope for modelling to improve over time, we consider that this should be a four year plus four year output incentive.

Business carbon footprint

1.15. We consider that an incentive on the SO to reduce its business carbon footprint has merit. We consider that there are specific actions that the SO can undertake to minimise its carbon footprint and the environment.

[1] A licence obligation to do this was placed on NGET as part of the setting of the SO incentive scheme to apply from April 2011.

1.16. However, under RIIO–TI, the full gamet of NGET's activity in managing its business carbon footprint, including as SO, is captured. We are therefore not minded to introduce a separate SO output incentive associated with the SO's business carbon footprint as we are confident that this will be captured under the TO's output incentive.

Connections

1.17. Efficient and timely connections to the electricity system are important for a number of reasons not least so that new sources of generation can come online promptly to meet security of supply and environmental objectives.

1.18. While the SO does not build the assets associated with a connection (the TO does), there are number of obligations on the SO regarding the process for making connection offers – this requires the SO to effectively work with the relevant TO(s)[2]. Once NGET as SO receives a connection offer it notifies the applicant of the date that it receives the application and assuming that everything is in order, it then needs to engage with the relevant TO to develop a connection offer for the applicant within three months.

1.19. Under RIIO-T1, NGET has an output regarding connections. Under this, NGET is required to fulfil its obligations regarding the connections process under its licence[3] and the Connection and Use of System Code (CUSC). If NGET does not comply with those obligations that relate to timings within the connections process[4] then it will be liable for a financial penalty. Of course, if NGET does not fulfil its licence requirements regarding the connections process it is potentially liable for enforcement action. In addition, under RIIO-T1, the quality of the information that is provided through this process will be addressed through the customer satisfaction output and associated customer survey. Where the quality is deemed unsatisfactory this too will translate to a financial penalty. This financial output incentive is expected to be an eight year symmetrical financial incentive.

1.20. Importantly, we consider that this incentive captures NGET's role as SO as well as its role as TO. Given this, our initial view is that we are not proposing any further incentive in this area.

1.21. We are also keen to ensure that the role of the SO in network design, whether this be part of the connection process, wider network reinforcement, helping select the location of interconnectors or otherwise, is treated appropriately within the regulatory framework. We discuss this aspect of the SO role in more detail in the network availability and reliability section.

[2] The SO also has an important role in identifying what needs to be undertaken to ensure the overall integrity of the energy system is maintained (wider works).
[3] The obligations this will encompass include NGET licence conditions C 6,7,8,19,10 and 26 which are in the system operator section of the licence.
[4] For example the requirement in paragraph 8 of licence condition C8 which requires NGET to respond to a request for information relating to a connections application within 28 days.

Reliability and availability

1.22. Having a reliability and availability output category for both the SO and the TO in electricity is important to ensure that all parties play a full role in delivering a sustainable energy sector. A key component of this is ensuring that the network is available and that it can be developed/re-enforced in a safe, co-ordinated and sustainable manner.

1.23. The SO has an important role with respect to network availability and reliability. For example, it is required to prepare and update planning assumptions (information relating to the transmission system) to be used by the TOs in their planning and development of their transmission systems. It is also obliged to:

- work with the TOs in developing their business plans and in relation to the planning of outages;
- develop and maintain network investment plans – these documents are known as the Seven Year Statement for Onshore Investment and the ODIS for offshore investment;
- develop a ten year network development plan based on existing and forecast supply and demand after having consulted all the relevant stakeholders for the Authority; and
- provide information to the market, which it does through a variety of mechanisms including the operational forum and the Winter and Summer Outlooks[5].

1.24. We therefore consider that this is an output where both the SO and TO are jointly responsible for delivery.

1.25. Under RIIO, the TOs had to prepare, as part of their business plans a network availability policy. This policy will clarify what the SO, and other stakeholders, can expect from the TOs insofar as their actions affect the availability of the transmission network. For instance, this could include how the TO will plan and manage outages. Under RIIO-T1, this will be a primary output and we will be able to impose financial penalties in the event of a TO not complying with its stated policy. Further industry work is continuing to develop robust policies.

1.26. We have carefully considered what additional outputs are required on the SO to ensure that it works effectively with the TOs but that no party is able to access any incentive more than once for the delivery of the same outcome. As part of this we want the SO and the TOs to take account of behavioural and investment interactions and to carefully consider the trade-offs between capital and operational expenditure when aiming to deliver this output.

1.27. We consider that there are two incentives that we can place on the SO to facilitate the delivery of this output, and these are discussed below.

[5] This issue is considered under the provision of information to the market output.

Management of processes and procedures

1.28. One of the areas we consider the SO can influence the availability and reliability of the network is through its involvement in various regulatory processes it is either involved with or has responsibility for. For example, NGET as SO is currently required to ensure that the security standards currently adhered to, and contained within the legally binding National Security and Quality of Supply Standards (SQSS), remain appropriate.

1.29. While NGET can manage these various processes via a 'tick the box' approach, we consider that the SO is uniquely placed to play an important, proactive and innovative role in this area. For example, the SO may be able to use these forums to test ideas and develop innovative solutions to issues, such as exploring the potential use of targeted N-1 network planning (with appropriate risk mitigation approaches) rather than adherence to N-2 requirements as a means to help drive efficiency and long run, value for money for consumers.

1.30. Another area where we consider that value for money may be achieved is with the SO and the TO amending their behaviour and working more closely together is with respect to outage planning. As outlined in the RIIO-T1, we consider that greater consideration of the overall costs associated with changes to planned outages (and the development of an appropriate mechanism by which compensation could be paid) may result in better value for consumers also being achieved.

1.31. Notwithstanding various regulatory requirements associated with some of these processes, our initial view is that a reputational incentive in relation to NGET's management and shaping of the various processes and procedures it is involved with is appropriate. We consider that this will encourage NGET to exercise its control (where appropriate) and look to identify and drive innovative solutions to known concerns.

1.32. As part of this, we are minded to require the SO to deliver a statement that demonstrates how it will approach the various processes and procedures that it is (or may wish to be) involved with. This statement can then form a benchmark (along with stakeholders' views) as to how effectively it is meeting its stated objectives. We consider that fixing this incentive for an eight year period is appropriate.

Demonstrate taking account of interactions with TOs, especially with respect to network investment

1.33. There are a number of areas where the SO and the TO currently work together but where we consider the regulatory framework could be improved to encourage greater value for money for consumers. This is particularly true with respect to network planning and investment, which is fundamental to the ongoing operation of the network and minimising constraint costs.

1.34. Under RIIO, the TOs have to build and plan new network capacity and they have a strong cost minimisation incentive to encourage efficient network design[6]. The

[6] The TOs also have access to uncertainty mechanisms around a baseline revenue to take into account of, amongst other factors, wider works that the SO may identify.

TOs are not, however explicitly obliged to consider the costs the SO may incur as a result of their proposals, although RIIO-T1 seeks to encourage the development of an effective interface.

1.35. Under current arrangements the SO provides planning assumptions and information relating to any required wider works to the TO. Importantly, if the SO identifies capital expenditure that may increase the TO's capital expenditure (and which may not be the least cost solution from a TO specific perspective) but that could reduce the overall costs incurred by the SO and the TO over the medium term there is no effective mechanism by which this can be facilitated. The lack of such a mechanism is to the ultimate detriment of consumers. The nature of a potential mechanism to address this issue is explored in Chapter 4.

1.36. Given the scope for greater value for money to be achieved as a result of greater interaction between the SO and the TO (and the European TSOs), we are minded to have a reputational incentive with respect to how effectively the SO engages the TOs and the TSOs. We will also consider the need for specific incentives to promote coordination in network investment decisions through other (related) workstreams.

1.37. A key component of this reputational incentive could involve the SO developing a policy statement outlining how it will engage TOs. Amongst other issues, this SO-TO policy should explore what the SO's approach to planning will be, what the SO considers its priorities will be for the duration of the scheme and how its actions are for the long run benefit of consumes. For example, this policy would set out how the SO intends to plan and manage outages as well as outline how its approach will be the for the long run benefit of consumers.

1.38. Importantly, this policy would complement the network availability policy that the TOs are required to produce and adhere to under RIIO-T1. Together, these two (SO and TO) policy statements will facilitate greater transparency in how decisions are made and what factors have been considered in the making of decisions associated with the delivery of this joint output.

1.39. Ensuring there is scope to evaluate whether the SO adheres to its SO-TO policy will also be important. This statement would need to set the baseline level of performance that we expect to see during the scheme. From that baseline we would then be able to assess, each and every year, the SO's adherence to its stated policy.

1.40. In terms of the nature of this output incentive, we are minded to apply this reputational incentive for the full eight years of the scheme. For the sake of clarity, we consider that while this policy will be set for eight years, an assessment of NGET's performance can be undertaken on a more regular basis.

Stakeholders satisfied

1.41. Under RIIO-T1, we established a primary output that relates to customer/stakeholder views of each TO's performance. The views are to be identified through stakeholder satisfaction surveys.

1.42. We similarly consider there is merit in the SO being subject to a stakeholder satisfaction incentive as stakeholders and customers can best provide a relevant

picture of the SO's performance. Importantly, while all the outputs in the SO regulatory framework are developed to meet the needs of stakeholders this output re-enforces the other outputs and provides a direct check on stakeholders' views[7].

1.43. Importantly, we consider that the customers/stakeholders that will be covered by the TO survey will capture the stakeholders that are relevant for the SO – we are not therefore proposing to undertaken another survey.

1.44. Under RIIO-T1, TO customer satisfaction[8] is to be supported by two separate financial incentives:

- the first relates to results from a customer/stakeholder satisfaction survey; and
- the second is a discretionary reward available where TOs are able to demonstrate that their effective stakeholder engagement has led to exceptionally positive outcomes for customers.

1.45. For the SO, we consider that a financial output incentive based on the results from the stakeholder satisfaction survey is appropriate. We do not, however, consider there is a need for a discretionary reward.

1.46. We also consider that this output incentive should be symmetrical and should be imposed for eight years if possible. For the sake of clarity, we consider that the principles behind the survey and the rules for the application of an incentive based on the scores should be fixed for the eight years although any surveys should be undertaken on a more regular basis.

Balanced system

1.47. Balancing the electricity system and ensuring the appropriate frequency is maintained are fundamental to the successful operation of the system. As such, we consider that it is appropriate that there are incentives in place that encourage the SO to manage these two roles in an efficient and value for money manner.

1.48. We recognise that undertaking these roles can be difficult and that going forward, as more wind and renewable generation come on line, managing the system frequency will be more challenging for the SO. For example, keeping the right frequency level will be difficult due to the effect of high wind cut out across larger wind farms. Constraint management will also be more challenging due to the significant amount of new generation that is expected to connect to the system over this period, particularly under the connect and manage regime.

1.49. We therefore consider that retaining a strong cost incentive (see Chapter 4) on the electricity SO to minimise the cost of balancing the system is appropriate. However, we also consider that there is the case for having complementary output

[7] In developing this incentive we will need to ensure that the survey is clear about the SO role and other roles, and this role should be informed by stakeholder views, including us; and that there will be some independent review of the survey prior to implementation.
[8] Further details on the incentive scheme can be found in our March 2011 RIIO-T1 strategy decision.

incentive schemes relating to system balancing and system frequency – both of these are discussed below.

Demand equal supply

1.50. NGET as SO procures balancing services to balance electricity system demand and supply (taking into account network limitations) to ensure the security and quality of electricity supply across the GB transmission system. By undertaking this activity and balancing the system NGET also ensures that the frequency of the electricity system is maintained within the required parameters[9].

1.51. Importantly, NGET is required under its transmission licence to ensure that demand meets supply and there are a number of mechanisms available to us should it fail to meet this condition of its licence.

1.52. Given the presence of a legal requirement (with appropriate enforcement action) to ensure a balanced system we would tend to consider there would be no additional merit in applying another incentive in this area. This position is re-enforced, given the current cost incentive that we intend to continue with which provides a strong incentive for NGET to ensure that the system is balanced taking into account network limitations.

1.53. Given the above, our initial view is therefore that we will include a separate reputational output incentive on NGET as SO with respect to balancing the system.

1.54. That said, given the ability of the SO to play an important significant role in exploring and developing innovative solutions to balancing the system (e.g. storage, DSR) there may be scope for a financial (rather than a reputational) incentive to be applied in this area[10]. Specifically, we consider that NGET as SO may be able to proactively encourage the development and use of DSR to help balance the system (to a greater extent than it currently does). Currently, less than 0.1 per cent of NGET's balancing services requirements are provided by the demand side.

Frequency control

1.55. NGET is subject to a regulatory requirement to keep frequency within the required boundaries (± 1% 50Hz save in abnormal or exceptional circumstances). In general, NGET achieves this objective when it balances the system, with the required frequency being a by product of achieving a balanced system.

1.56. Notwithstanding the presence of a regulatory requirement on NGET to keep frequency within required boundaries, we are minded to apply a reputational incentive in this area to improve transparency and to ensure that NGET is undertaking its operations in an efficient and co-ordinated manner. We also consider that this may become an increasingly important area given the various challenges

[9] The frequency response requirements are specified in the Grid Code (Connection Conditions CC.6.1.2 and CC.6.1.3.

[10] We consider a financial incentive may be appropriate as the level of use of DSR in balancing the electricity system is largely within NGET's control (as SO), there is clarity with respect to what would be delivered and there would be a robust data set by which to measure this.

that NGET as SO may face in balancing the system, including due to greater intermittency.

1.57. We consider that a key component of this reputational incentive should be a requirement for NGET as SO to prepare a report (at least annually) on the number of times that frequency fell outside the permitted boundary; the duration of any such deviation; the reason for that deviation; the action that it took to address the deviation; and any findings that it has identified from its experiences and any lessons that it will implement going forward. We also consider that this output should be set for eight years.

Provision of information to the market

General information provision

1.58. We consider that NGET as SO is uniquely positioned to provide information to the market on a range of energy issues including how the system is operating as well as more general information that could be useful to the sector. We consider that the continued provision of this type of information should be encouraged. Information that NGET currently provides includes:

- the balancing cost information that it provides to industry via forums and through the release of monthly data; and

- a number of legally required documents such as the Seven Year Statement for onshore investment and the ODIS.

1.59. Given there are already legal requirements for NGET to produce this information we do not propose to have a separate output incentive scheme for the provision of this information. In the event of non compliance we have a number of actions available to us to secure compliance with the law. We also expect to capture the views on the quality and relevance of the information produced through the (financial) customer/stakeholder satisfaction output.

Information on renewable generation

1.60. We also consider that NGET as SO is uniquely placed to provide timely information to the market about the level of renewable generation (principally wind generation) over the short and medium term. This information will be particularly important to facilitating the move to a sustainable energy sector. Specifically we consider that there are a number of benefits associated with the release of this information including improved self balancing and reduced balancing costs (for NGET as SO).

1.61. We recognise that NGET currently produces wind forecasts and that its forecasts are expected to become more accurate over the period to 2020 (in part due to additional SO internal cost funding it is seeking in its TO business plan). We also recognise that NGET already has an implicit incentive to produce accurate forecasts

of output from wind generation through the external balancing cost incentive scheme (see Chapter 4 for a discussion of the cost scheme)[11].

1.62. Notwithstanding the presence of the overall incentive on balancing costs, our initial view is that it is appropriate to have a financial output incentive that relates to NGET's production of a wind output forecast. This separate output incentive scheme will ensure that attention is focused on this increasingly relevant and important area.

1.63. We consider that the output incentive scheme should relate to the accuracy of NGET's wind generation output forecast and the timeliness and availability of the information on its website. We would, however, be particularly interested in stakeholders' views on this issue.

1.64. We also consider that ideally this incentive should be set for eight years. However, we recognise that NGET should be able to improve its forecasting ability over time and therefore our initial view is that this incentive should be a four year plus four year incentive. In designing such an incentive, we would need to ensure that the SO could not benefit from any double counting, for example by the inclusion of a cost allowance within its internal costs and be receiving a payment under this incentive.

Security of supply – potential future output category

1.65. NGET currently does not have an explicit obligation relating to security of supply but we recognise that there are a number of potential reforms being considered that may change this. While we are not proposing a security of supply output to be applied at this stage, we consider it appropriate to note that in the event of legislative change we may reconsider this and introduce an additional output and incentive to ensure optimal delivery. Any such change would, however, occur through appropriate reopening provisions as described in Chapter 5.

1.66. That said, as the policy position becomes clearer we expect NGET to be considering this issue and that it will be in a position to propose an appropriate output and incentive(s) shortly after the release of the Government's known policy position on future reforms.

[11] NGET already faces an incentive to improve its wind forecasting under the current scheme. This is primarily because better forecasting would allow NGET to optimise procurement of operating reserve and reduce incentivised expenditure.

Appendix 5 – Gas outputs and output incentives

1.1. This appendix explores in more detail the gas outputs outlined in Chapter 3.

Safety

Workplace safety

1.2. NGG as owner and operator of the NTS is required by legislation to design and operate its network to ensure the safety of the public and its employees. The HSE monitors and enforces performance in this area.

1.3. The output for NGG, including in its role as SO, for safety for gas transmission is for it to comply with its safety requirements. This mirrors its obligations with the HSE and therefore reflects the existing safety regime.

1.4. Consistent with RIIO-T1, we do not intend to attach an incentive to this SO output, as compliance with these requirements is the minimum level of delivery that we would expect. Importantly, in the event of non compliance the HSE has a number of actions available to it to secure compliance with the law and to ensure a proportionate response to criminal activities.

Operational safety

1.5. Under its Safety Case, NGG in its role as SO is required to procure Operating Margins (OM) gas. Requirements for OM gas are determined through network simulation analysis. The requirement is for the physical delivery of additional gas to maintain safe pressures within the NTS during a System Event, until other measures take effect.

1.6. We have noted previously that we consider that it is not necessary to set separate incentives on the SO where the requirement of the delivery of an output is set in alternative legislation. We therefore do not intend to attach an incentive to this output.

1.7. NGG also has a licence requirement (Special Condition C25) to promote competition in the provision of OM gas and is also incentivised to minimise the cost of such purchases. We continue to consider that NGG should be looking to facilitate the provision of OM gas from new providers, this is particularly important given the uncertainty regarding the viability of the LNG storage facilities to continue to provide this service. We therefore consider that the SO should continue to have a reputational incentive on it in respect of the promotion of competition, and that this incentive should be in place for an eight year period. We also consider that the SO

should recommence reporting to the Authority on its activities in respect of this output[12].

Environmental impact

1.8. As discussed in the section on SO electricity environmental impact outputs, we think it is appropriate to set incentives on the gas SO to encourage it to play a fuller role in meeting the environmental challenges that the sector faces. In RIIO-T1 a number of outputs in this category are under consideration for NGG. We discuss the main outputs here in the context of the gas SO. We will undertake further work under RIIO-T1 to confirm which of these outputs are needed and to determine whether it is appropriate for incentives to be placed on NGG as TO, NGG as SO, or both.

Broad environmental impact

1.9. A broad environmental output is a mechanism to give companies a vested interest in achievement of the UK renewable and low carbon targets. For example, it is key that the gas network is able to respond to CCGTs operating more flexibly as a result of them responding to the intermittent nature of renewable generation and that demand side response is able to play its part in the gas market. We consider that any incentive in respect of NGG's broad environmental impact should include SO and TO activities. Reputational incentives on NGG in respect of its broad environmental impact are included in RIIO-T1.

Direct emissions – natural gas venting

1.10. As SO, NGG vents gas as part of its operation of the system. We have previously said that we consider it appropriate for the gas SO to take full responsibility for the environmental costs of natural gas venting in the long term. To inform our thinking on the development of an appropriate natural gas venting incentive from April 2013 we have put in place a licence condition[13] (a Scheme of Work) which requires NGG to develop and undertake further work on the measurement of emissions and research into the alternatives to venting.

1.11. Currently, NGG is only incentivised to reduce its emissions resulting from compressor venting, as it has previously been considered that this covers a significant proportion of its emissions. Should the work that NGG is currently undertaking highlight that there are other activities that also result in significant levels of emissions, we will consider how best to include those venting activities in a single output incentive scheme.

1.12. We consider that NGG should continue to be financially incentivised to reduce its venting emissions through the SO regulatory framework. As discussed above, the incentive could relate to compressor venting only or to a wider category of venting activities. We expect to set the financial incentive scheme for eight years. This

[12] Under Special Condition C25 the requirement to report to the Authority ceased on 30 April 2009.
[13] Special Condition C28 "Requirement to develop and undertake a Scheme of Work to facilitate the establishment of a long term external gas system operator incentive to reduce targeted greenhouse gases".

scheme length will encourage the SO to focus on the long term and allows for interactions with the TO, and its eight year price control, to be effectively managed. Given the aim of NGG reducing its emissions in the long term, we consider it may be appropriate for a multi-year incentive to be set.

1.13. Decisions about how best to manage venting involve a significant degree of interaction between NGG's SO and TO roles. We expect NGG to consider whether operational or investment solutions provide the most effective and long term value for money solution for consumers. We also expect them to make a clear and well-justified case to us in their RIIO-T1 business plans of any such investment related decisions, emphasising the interactions with the SO output requirements. We will need to consider interactions between the TO price control and the venting emissions output target and the scale of the financial incentive on the SO to deliver this output. We would need to ensure that NGG continues to have incentives to find the least cost solution, across SO and TO activities, and that consumers are not paying twice for delivery of the same output.

Connections

1.14. Efficient and timely connections to the transmission system are important such that new sources of gas supply are able to enter the transmission system and new customers are able to have their demands for gas met.

1.15. Whilst NGG as TO is responsible for building any assets that are required for connection, it is important that NGG as a whole works to ensure efficient and timely connections to the system. This is key throughout the whole process from the initial contact by the potential applicant, through the design of the connection, development of revenue drivers and completion of any building works. A number of market participants that are looking to connect to the NTS have raised concerns with Ofgem regarding the lack of a clear process regarding such connections to the NTS. We consider it important that NGG (as an integrated SO and TO) has a process[14] that provides for timely connections to the NTS and is transparent in respect of both the information that the applicant is required to provide to NGG and the information that NGG provides to the applicant. We expect NGG to play a full role in ensuring that a connections process is developed that is fit for purpose.

1.16. We would note however, that irrespective of whether a fit for purpose connections process is in place, a key output of NGG's role as both SO and TO is to ensure that there are efficient and timely connections to the NTS. We would expect the assessment of whether this is the case to be part of the stakeholder satisfaction survey. Given the importance that market participants place on their applications being dealt with in a timely and appropriate manner, we consider that it may be appropriate to place a financial incentive for the eight year period on NGG in respect of its SO role. Such an incentive would ensure that NGG deals with all applications for connection in a timely manner, and provides all relevant information to applicants.

[14] We note that UNC Modification Proposal 373 has been raised in an attempt to improve the overall connections process.

Reliability and availability

1.17. NGG in its role as both SO and TO has a requirement to make capacity available on the NTS such that gas is able to flow from the point of entry onto the NTS to the point of exit off the system. In doing this NGG must ensure that safe levels of pressure and quality are ensured. There are clear operational roles that need to be undertaken by the SO. These include the operation of compressors and the commingling of gas, thereby limiting the volume of CV shrinkage. The way that the SO uses the existing assets on the system is a key part of ensuring that the output is delivered.

1.18. The key output here is that NGG makes available capacity at entry and exit points (either new or existing points) in order to meet customer requirements and in accordance with UNC, contractual and licence obligations. When deciding how best to deliver this output at long term value for money NGG will need to consider both SO and TO actions. This is particularly important when incremental capacity requirements are being considered. NGG has four main options for meeting such a requirement:

- do nothing, in effect use the existing assets in such a way to make the capacity available;

- buy-back capacity, where for operational reasons or as a result of new capacity not being built in time, the capacity sold is not available;

- enter contractual arrangements with shippers/large users, in order to limit capacity requirements according to availability, particularly in respect of ensuring demand side response; and

- invest in additional network capacity.

1.19. We require NGG to have a clear and transparent strategy as to how it makes the decision between different options. A key component of which is to ensure that it makes the best use of existing assets. Under Special Condition C15 of its transporter licence NGG is currently required to have in place a methodology statement by which it determines whether to make incremental entry capacity available for sale to shippers. We consider it is appropriate for this methodology statement to also cover NGG's decision process in terms of the four options highlighted above. We will expect NGG to demonstrate that the decisions being made are in the best interest of existing and future consumers.

1.20. We recognise that the amount of capacity that NGG will be required to make available at entry and exit points on the system will continue to change, particularly as new supply sources are commissioned and supplies from other sources (particularly UKCS) diminish. It is key that NGG deals with these transitions in the best interests of consumers, which includes NGG being clear in its determination of how best to make capacity available, including in respect of interactions with other SOs across Europe. In addition, in its TO business plan, NGG has requested funding for replacement electric driven compressors as a result of the implementation of new European Industrial Emissions Directive. We will need to consider whether this capital expenditure funding is appropriate and if so, the extent to which the rollout of electric driven compressors will affect its shrinkage costs.

1.21. Currently in respect of this output, the gas SO is incentivised to minimise the costs of the fuel it uses in its compressors and the gas that is restricted by "CV shrinkage". In parallel, we propose to have an output incentive scheme for NGG to ensure that it is appropriately incentivised to make capacity available. We welcome views on how best to take this output incentive scheme forward. The shrinkage cost incentive scheme and a 'make capacity available' output incentive scheme will reinforce the need for NGG to set out a clear and transparent strategy on capacity availability in its TO business plans update in March 2012.

Stakeholders satisfied

1.22. As discussed in the section on 'stakeholders satisfied' for the electricity SO, in RIIO-T1 we have decided to put in place a primary output on the TOs that relates to customer/stakeholder views of each company's performance. As with electricity we think it is appropriate for the RIIO-T1 stakeholder survey financial incentive to cover both SO and TO related issues. The potential customer coverage of the gas network company's survey would be appropriate in its role as both SO and TO. Further details on the incentive scheme can be found in our March 2011 RIIO-T1 strategy decision. There will be no additional output incentive scheme in the SO regulatory framework.

Balanced system

1.23. One of the key outputs that NGG has in its role as SO is in respect of residual balancing. When shippers (in aggregate) do not maintain a balance NGG is required to buy and sell gas in the On the day Commodity Market (OCM) such that the system is in balance (i.e. supply = demand) at the end of the day and system pressures are kept within safe operational limits at all times. In doing so it also needs to take into account the volume and change in linepack in the system.

1.24. We consider that ensuring that the gas system remains in balance and ensuring the appropriate pressures are maintained are fundamental outputs that the SO needs to ensure are met in order for the successful operation of the system. These are set out in NGG's licence and therefore we consider that there is no requirement for a further SO output incentive.

1.25. However, it is important that the actions of the SO do not lead to any unintended consequences in respect of the behaviour of shippers on the system, for example, shippers need to remain incentivised to balance their own positions at the end of each day.

Minimise the change in linepack

1.26. Currently NGG as SO is financially incentivised to minimise the change in linepack from one day to the next, to ensure that shippers that are out of balance on any given day are "cashed-out" at a price that reflects the cost to the system of them being out of balance. NGG receives a payment if the change in the end of day linepack is below that target and makes a payment if it is above the target. We consider that it is appropriate for NGG as SO to continue to be financially incentivised to minimise the change in linepack on a daily basis, such that the principle of "polluter pays" remains in respect of the calculation of cash out prices. We consider that such an incentive could be set for an eight year period.

Minimise impact on On the day Commodity Market

1.27. Any trade that NGG undertakes on the OCM is used in the setting of a System Marginal Price, which in turn sets the price at which a shipper's imbalance is cashed-out. The actual costs of NGG's trades are recovered via cash-out and neutrality, and therefore NGG has no direct exposure to these costs.

1.28. NGG as SO is currently financially incentivised such that any actions it takes in the OCM are as close to the market price as possible. The current form of the incentive encourages NGG not to enter the market by it receiving a daily payment on days when it does not enter the market and when it does so to trade close to the market price, by it receiving a payment if its trades are within the target measure of the market price thereby limiting its impact on the market.

1.29. However, such an incentive whilst minimising the SO's effect on the market may not minimise the costs that the SO incurs. Therefore, in our June consultation document we discussed the possibility of incentivising the SO in respect of the total cost of its actions in the OCM. Such an incentive could result on NGG taking actions that were not close to the market price and therefore would have a greater effect on cash out prices, which could result in shippers having a greater incentive to balance their own positions. We note that such a cost incentive could be in addition to or instead of one or both of the current output incentives.

1.30. We would welcome the views of respondents on how such a change to the incentive on NGG could have an effect on cash-out prices and therefore on the incentives on shippers to balance their own positions.

Unaccounted for gas

1.31. Unaccounted for gas (UAG) is that energy which remains unallocated after accounting for all measured inputs and outputs form the NTS, Own Use Gas consumption, CV Shrinkage and the change in NTS linepack[15]. Prior to 2009, UAG was included within the bundled Shrinkage cost incentive, and therefore NGG was incentivised to minimise both the volume of UAG and the price at which it purchased shrinkage gas to cover UAG. As a result of concerns regarding the increasing levels of UAG, in 2009 NGG accepted a separate financial incentive for a three year period in respect of the volumes of UAG.

1.32. Despite the work undertaken by NGG since 2009, and the uncovering of two significant metering errors, the level of UAG is still causing concern. In addition, the increasing uncertainty over the levels of UAG mean that we do not consider it possible to set an accurate target for an incentive on the SO for the period April 2012 to March 2013. Our Final Proposals for the SO 2012 scheme therefore contain a licence condition requiring NGG to continue to undertake work to investigate the drivers of UAG and to consider, if such drivers are identified, that work can be taken forward to reduce the levels of UAG.

[15] Whilst we note that even when the system is in balance there may be Unaccounted for Gas, we consider that it is an important component of ensuring that market participants are able to balance their own portfolios.

1.33. We consider that NGG has an important part to play in minimising the levels of UAG and therefore this remains an important output of its role as SO. Whilst we recognise the work that NGG has already undertaken in this respect over the last three years, this has also highlighted the difficulties in understanding what these drivers are. We therefore consider that it may be appropriate that this licence condition, including the reporting requirements on NGG within it, remains in place as a reputational incentive on NGG going forward from 2013.

1.34. Should the work that NGG continues to undertake to investigate the drivers of UAG result in the identification of specific work to be undertaken to reduce the levels of UAG volumes, we will consider whether it is appropriate to place any additional incentives on NGG in respect of the required outputs.

Provision of information

1.35. NGG in its role as SO makes available significant amounts of information. This ranges from its Ten Year Statements and Winter Outlook reports, to forecasts of demand and detailed up to date market information on its website. Such information can be divided into two main categories: information about the market and network information. In addition NGG is also required to publish a number of methodology statements that relate to the activities that it undertakes. We also note that NGG is providing significant information to the market through its well justified business plans.

1.36. The provision of such information to the market facilitates market participants in undertaking their own roles, for example, more accurate demand forecasting means that shippers are more able to balance their own supply and demand positions.

1.37. It is therefore important that in meeting these outputs, NGG provides the information to the satisfaction of its stakeholders and customers. As discussed above, we are proposing to measure the output of customer satisfaction via a survey which will include a number of the areas of information provided by the SO.

Availability and timeliness of information on website

1.38. NGG as SO is currently financially incentivised in respect of the availability and timeliness of information on its website. We have previously stated that we consider it may be appropriate to no longer financially incentivise NGG in respect of the timeliness and availability of its website, and that NGG should receive an allowance via its SO internal costs to make this information available. Should NGG consider this to be appropriate we would need to see justification for these costs within NGG's business plans.

1.39. We consider that this is the appropriate way forward at this stage in respect of NGG being able to recover its costs for the provision of this service. However, we also recognise the importance that users place both on the availability and timeliness of this service, we therefore consider that it is appropriate to put a reputational incentive on NGG for eight years in respect of the provision of this information.

Accuracy of demand forecasts

1.40. We recognise the importance that users place on the accuracy of NGG's demand forecasting. We also note that in setting the rollover of this incentive to apply from April 2012, NGG highlighted that it considered it was becoming more difficult for it to develop an accurate forecast. This was primarily as a result of the increasing volatility in the levels of demand, most notably as a result of the increase in the levels of storage connecting to the system.

1.41. Whilst we recognise NGG's concerns, we consider that it is important for NGG to continue to provide accurate forecasts to market participants. We therefore consider that NGG should continue to be financially incentivised in respect of the accuracy of its demand forecasts. However, we consider that it may be appropriate to set a target for the long term, which could be for an eight year period. This would enable NGG to develop improvements to its forecast over a period of time. We note that it may be appropriate for additional costs, e.g. in respect of IT systems, to be included within NGG's internal SO costs. Should NGG consider this to be appropriate, we would need to see justification for these costs within NGG's business plans. Where NGG has specific concerns in respect of information it receives from certain market players it should be looking at how to ensure that this information is improved.

Forward looking market information

1.42. As outlined previously, NGG[16] currently publishes a number of documents that relate to a forward looking view of the market. Most notably these are the Ten Year Statement, Winter and Summer Outlooks and Transporting Britain's Energy. We also note the additional information that NGG is required to provide as a result of the implementation of the Third Package. Given the importance that is placed on these documents by the industry and more widely, we consider that a licence requirement, for the eight year period is placed on NGG in respect of the provision of this information.

Methodology statements

We also note that NGG has a requirement set out in its transporter licence to publish a number of methodology statements in respect of the activities that it undertakes.

Transparency in respect of SO-TO interactions

1.43. Throughout this discussion on the SO outputs we have emphasised the significant interaction and merging of the work undertaken by NGG in its role as both gas SO an TO. It is therefore important that these interactions and the decisions taken by NGG in respect of them are as transparent as possible. This ranges from the development of the SO and TO business plans through to how capacity is made available to new market participants. We therefore consider that it may be appropriate for the gas SO to report to the Authority on how it manages the interaction between its SO and TO functions, including any trade offs it makes

[16] Some of these publications are in conjunction with NGET.

between actions taken by each, to ensure as much transparency as possible in respect of these actions.

Security of supply – potential future output category

1.44. NGG in its role as SO currently does not have an explicit obligation in respect of security of supply (i.e. that there should be sufficient gas supply at all times to meet demand). However, we note that Ofgem has been asked to undertake a review of gas security of supply by DECC. The gas SCR we are currently undertaking also looks at possible ways to enhance security of supply. Whilst we are not proposing a security of supply output be applied at this stage, we consider it appropriate to note that in the event of NGG undertaking an additional role as a result of the outcome of either of these workstreams an additional output and incentive to ensure optimal delivery of this service may be needed.

1.45. That said, we consider that NGG should take into account how it can play a role in securing security of supply going forward.

Appendix 6 – Gas cost incentives

1.1. In this appendix we provide further detail on the gas cost incentives outlined in Chapter 4.

Shrinkage cost incentive scheme

1.2. We consider that it is appropriate that the Shrinkage cost incentive scheme takes the same form as the current scheme, in that it is a bundled scheme in respect of the volume of shrinkage in respect of compressor fuel usage, CV shrinkage and Unaccounted for Gas, with the volumes then being multiplied by a reference price to form a target. To streamline the review of gas SO incentive schemes going forward we are proposing to have an eight year, scheme in respect of the Shrinkage cost incentive scheme. That is, we would set, as appropriate, the methodology for setting the parameters (target, sharing factors, caps, floors) or the parameters themselves for eight years prior to April 2013.

1.3. The use of compressors has strong interactions with NGG making capacity available, which is also a key output of the TO. The setting of an eight year scheme on shrinkage will therefore allow better alignment with this closely related element of the TO price control. We also consider that the use of uncertainty mechanisms as in the current scheme (for example, the link between CFU and gas flows) has given sufficient confidence for NGG to develop models that will be reliable over the eight year period.

1.4. We recognise that there are uncertainties in setting scheme targets for eight years. In the case of shrinkage this is particularly the case in respect of the link between compressor fuel usage and gas flows and also the impact of new gas sources of supply on CV shrinkage. We also need to consider implications of ongoing work relating to the identification of the drivers of Unaccounted for Gas.

1.5. We will therefore work with NGG to develop the methodology for setting and updating the cost targets. This will require NGG to update its modelling methodology in respect of compressor fuel usage and future gas flows. Any updated proposals will also take account of ongoing work with the RIIO-T1 team on whether, for outputs and cost categories where there is joint SO and TO responsibility, it is best to incentivise NGG through the SO incentive schemes, the TO price control or both. For example, in respect of compressors, we will need to ensure that NGG's plans to further roll out its electric driven compressor replacement programme is fully captured within its shrinkage costs.

1.6. As there are close interactions with the TO we are increasing the sharing factor for the Shrinkage cost scheme to 40-50 per cent. We will consider further implications of this in our review of uncertainty mechanisms.

OM cost incentive scheme

1.7. Our current view is also that the OM cost incentive should take the same form as the current incentive scheme. As with the Shrinkage cost incentive, we are aiming to develop an eight year incentive scheme in respect of OM. We consider that by extending the scheme length beyond the current two year scheme the SO will be

incentivised to explore opportunities for entering into longer term contracts with OM providers. It will also incentivise the SO to explore the provision of OM from providers where the time taken for them to be in a position to provide OM takes longer than a year.

1.8. However, we recognise that there are a number of uncertainties that will impact on NGG's OM costs going forward, most notably in respect of the provision of the service from LNG storage facilities. We will work with NGG to determine a methodology to forecast OM costs going forward and consider how best to take account of these uncertainties in the design of the longer term scheme. This methodology for determining the OM cost target will need to continually incentivise NGG to improve its efficiency in contracting for OM. For example, as with 2012/13, the target could reflect past tender prices with an efficiency factor applied[17].

1.9. SO-TO interactions are less relevant for OM costs[18]. The scheme currently has upside and downside sharing factors of 20 per cent. We have considered whether there is a case for making the incentive more powerful but we think that given the scale of the costs involved and to some extent limited potential for significant cost savings it is appropriate to work with similar sharing factors to now. We are therefore proposing a symmetric sharing factor of 20 per cent. We would welcome views on whether a higher factor, consistent with the other cost incentive schemes, would be appropriate.

Potential balancing cost incentive scheme

1.10. As we highlighted in Chapters 3 and 4 and Appendix 5, we are considering the possibility of also setting a cost minimisation incentive scheme in respect of gas balancing costs. In Chapter 2 we highlighted how the role of the gas SO is likely to become more challenging as a result of increased levels of intermittent generation, leading to increased intermittent use of CCGTs and thereby increasing levels of volatility in the use of gas.

1.2. Such increasing levels of volatility are likely to be witnessed both within day and also over seasonal timeframes. Whilst we consider that the current residual gas balancing incentive schemes have to date been fit for purpose, it may be that going forward additional or alternative incentive schemes are required, particularly to ensure that the SO is appropriately incentivised as gas demand becomes more volatile.

[17] We note that this target was proposed after the tender for 2011/12 was completed and therefore there was no risk of the SO being incentivised to take high priced tenders in 2011/12 in order for a high cost target to be set for 2012/13.
[18] We note that the requirement for Operating Margins is partially impacted by the topology of the network. However, we do not consider that the impact is sufficient such that there is a requirement to align the incentive rates.