

RIIO GD1 – OUTPUTS & INCENTIVES

CHAPTER 1 - Introduction

Question 1: We would welcome respondents' views on the approach we have taken to develop the outputs framework.

The approach taken by Ofgem is broadly a sensible one building on the approaches from DPCR 5 and using the principles established and consulted on as part of RPI-X@20/RIIO. We welcome that in most areas Ofgem has developed measures in conjunction with the GDNs to ensure they are appropriate and tailored to gas distribution. NGN is supportive of all the output measures proposed at this time.

It is important for Ofgem to appreciate that as with the DNOs' in DPCR 5 some of these measures involve new concepts, definitions and metrics which will require further work to develop. It is therefore important for Ofgem to recognise what companies can realistically include in their business plans being submitted in July 2011. In certain cases it may be more appropriate the GDNs to provide a commitment to developing particular measures by a later date.

Question 2: Do any of our proposed output measures present potential difficulties in ensuring the submission of accurate and comparable data?

As mentioned above there some areas where the proposed output measures will require new data and definitions that need to be developed by the GDNs e.g. network health, capability and utilisation. etc. The issue here is one of timing as the GDNs may not in some cases have developed frameworks for reporting accurate and comparable data in time for the business plan submissions. The onus should be on the GDNs to give a commitment in the business plans to developing the output measures. It is worthwhile considering incentives (both positive and negative) on GDNs to develop these in a timely fashion.

Question 3: Are there any aspects of our proposed outputs framework where the reporting requirements are likely to lead to disproportionate regulatory costs?

At present we don't believe this will be the case.

Question 4: Should we introduce an independent examiner for all companies to improve regulatory reporting?

No we believe the onus should remain solely on licensees to provide accurate data and improve regulatory reporting. This maintains a clear line of responsibility and accountability.

There is a danger with using the independent examiner, as exists in the water industry, that they become part of the process and that there is less accountability as individuals believe any errors will be picked up later therefore do not need to exercise as much care.

Question 5: Do you have any views on our proposed approach to revising outputs?

NGN has no issues with the approach proposed for the mid period review of outputs. We would hope that a robust process to define the outputs prior to commencement of the price control would ensure that no administrative errors or unfit measurement/reporting adjustments would be necessary.

CHAPTER 2 - Environmental impacts

Question 1: Do you agree with our proposal to require GDNs to report the capacity of bio-methane connected as a broad measure of environmental impact but not to adopt an associated financial reward/penalty?

Yes the reporting of the capacity of bio-methane connected to each individual GDN will provide Ofgem with some useful information on the overall development and uptake of bio-methane

technologies nationally and to a limited extent the effectiveness of any incentive arrangements in place to stimulate the growth in this area.

Some care needs to be taken when making direct comparisons between GDNs using this data. The potential for the development of bio-methane to grid schemes will be driven largely by factors that are outside of the control of GDNs and additionally there are genuine differences in the capability of GDNs' geographical areas to support bio-methane production using anaerobic digestion. For example, bio-methane produced from different feedstocks will have different geographical footprints required to support a given level of output. Parts of the UK will have a greater propensity to support bio-methane schemes than others. Direct comparison between GDNs regarding the amount of capacity connected should be treated with some caution.

Nevertheless we recognise that behaviour of the GDN can have an impact on potential developments and believe further consideration needs to be given to the incentives surrounding this area.

Question 2: Is there any other measure of environmental impact which you believe could be financially incentivised, bearing in mind the need for an output to be measurable and controllable by the GDNs?

There is no doubt that generally across society there is increasing awareness and concerns over the environmental impacts of any work that is carried out. We would expect that the framework in which we operate should reflect these concerns and whilst this is reflected in the range of environmental output measures proposed it is generally not in the associated incentives. We recognise the potential difficulties with measurement and comparability in calibrating such incentives and therefore believe this is an area where the discretionary reward scheme should be retained to reward companies who are delivering sustained reductions in the environmental impact of their works.

Following recent events there is heightened concerns about storage facilities located in urban areas including gas holders on the distribution network.

Question 3: We would welcome respondents' views on the expected take-up of bio-methane following the introduction of the Renewable Heat Incentive (RHI).

The RHI in respect of bio-methane entries into NGN's system (Btg) has not yet been finalised and a government announcement is expected shortly. Most of the potential Btg schemes would not progress without any RHI sponsorship apart from a small number of large sewage schemes. If the level of RHI support is favourable then more bio-methane producers will be attracted to Btg. It is likely that the viability of a large number of small potential bio-methane production units will be very sensitive to the level and guaranteed duration of any RHI support; thus, a favourable proposal from government could trigger a very large number of enquiries, impacting on the GDNs' abilities to respond rapidly and robustly to all of these.

NGN have worked closely with third party organisations that are developing bio-methane technologies and we have made significant progress towards developing a connection procedure and gas quality specification which will facilitate network entry agreements (NEA's). This work has demonstrated that in conjunction with RHI the take up of bio-methane connections will see a steady growth over the next three to five years.

To date, NGN has received expressions of interest from 17 separate schemes examining the option of injecting biomethane into NGN's gas network. Combined these schemes have a capacity of approximately 27,000 scm/h (standard cubic metres per hour). One of these schemes made a formal application for entry in 2010 and is currently forecast to begin production during 2011.

Question 4: Are there any wider-network benefits associated with bio-methane which might imply that we need to change the current connection charging boundary?

To encourage bio-methane uptake GDN's will have to ensure connections are available at the point of production in order to avoid extensive connection mains. Therefore it is likely that connections will be on low pressure systems in rural or semi rural locations as this is where the majority of the production

facilities will be sited. (i.e. farm product/waste). The GDN may have to apply restricted flow rates due to the limitation of the existing network and this will reduce the economic benefit of the connection.

Throughputs can be greatly enhanced if the connection point is in the high pressure tier however this will generally require lengthy connection pipes which under the current regime can be chargeable to the customer (bio-methane producer).

Consideration should be given to introducing an economic test to such a situation that takes into account the benefits to the GDN in terms of security of supply.

As more bio-methane schemes come onstream and the technology is proved this could generally increase the Network's ability to maintain security of supply. If the proposed bio-methane plant is within a non gas area, it may be possible to provide new gas supplies in the area, depending on site specific and economic considerations. This may require development or clarification of the role of the GDNs in extending supplies to currently non-gas areas.

Question 5: We would welcome respondents' views on our proposed approach not to recover connection and downstream asset costs through general network charges. In particular, we would like to hear views on the potential rationale for socialising the costs of connecting bio-methane plant, and how we might be able to do this within our vires.

There are several issues to address in response to this question:

- Firstly, when creating a new NTS entry point on a GDN, the associated costs of creating that new entry point are allowed costs under the regulatory framework and the capital expenditure included within RAV. As such the cost of that entry point are socialised within GDN charges to its customers. The creation of an entry point to the GDN for bio-methane or any other non-conventional source of gas should in principle be treated in the same way.
- The current connection charging methodology is the only means by which new GDN entry customers can be charged for the costs of connection and with all the costs of connection falling directly upon the entry customer.
- The current approach therefore creates both significant economic barriers to entry but also inconsistencies with the approach taken for different types of GDN entry.

In considering these issues it is important to clarify the different elements of cost that relate to the development of a new GDN entry facility and how these costs should be allocated via the charging process. NGN's proposed approach is set out below:

- 1) Non-Network related costs that are sole responsibility of GDN entrant:
 - Bio-methane facility capital and operating costs
 - Bio-gas sourcing costs
 - Propane enrichment
 - Connection to GDN pipeline including design work
 - Connection pipe
- 2) Costs payable by GDN (to provide parity with GDN entry from NTS Offtakes) and recovered via transportation charges:
 - Gas quality monitoring
 - Pressure/flow control
 - Metering
 - Odorant
 - Shut-off valve
 - Telemetry & control equipment
- 3) Network costs payable by GDN entrant via deep connection charging methodology:

- GDN reinforcement and compression costs, if required
- Blending facilities, if required and possible

This approach strikes a reasonable balance between addressing the inconsistencies between charging for different types of entry and new GDN entrants being exposed to the costs that they impose upon the network.

It is those costs we have identified in category 3 above that would be subject to the assessment of whether a deep or shallow connection charging policy should apply. Over the medium term we believe the approach should mirror that adopted for DG connections in electricity so there is no discrimination between schemes which may look to import gas into the network or generate electricity on site and export to the network.

Question 6: Do you agree with our proposed approach of logging-up costs associated with bio-methane connections in the event that the connection boundary changes?

The take-up of biomethane production and injection in to the gas network will be dependent upon, amongst other things, the scope and level of the RHI. As indicated above, there are already a significant number of schemes that are actively considering injecting biomethane into NGNs network that would look to connect within the next price control period.

Your preferred option would require GDNs to absorb the costs of these connections over the period of the next price control, where a deemed efficient level of costs would be allowed from the next price control onwards. Given the potential scale of such connections over the period to 2021, this would have a significant impact upon GDNs cashflows, the potential financeability of the networks and carry with it a risk of ex-post assessment by Ofgem. This does not represent an acceptable balance of risk and reward for the GDNs and hence does not provide the right incentives for connection of such schemes.

On this basis, Option 2, set out in your consultation provides a more robust framework for ensuring the efficient delivery of these connections. With more than two years before the start of the next price control and the imminent announcement of the introduction of the RHI during 2011, it is likely that the level of information available to GDNs and Ofgem on the likely costs of connection will be sufficient to set appropriate ex-ante allowances for such schemes.

Question 7: Are there other issues we should be considering for the price control in relation to distributed gas (predominately bio-methane)?

GDN's should be incentivised to provide support for prospective bio-methane producers to assist them in the end to end process from enquiry to construction. This might include the publishing of model framework contracts and procedures for assessing availability entry capacity at potential sites. GDN's should also be incentivised to promote the safe development and use of alternative gas quality, odourisation and CV monitoring equipment which is more cost-efficient than the currently approved items. This may involve the testing of non approved equipment in a fully safe controlled environment, collating information working closely in conjunction with suppliers and regulatory bodies to progress the introduction of new equipment. In the medium to longer term this should result in lower costs by introducing competition.

Ongoing maintenance of connection equipment, gas quality monitoring and management of bio-methane equipment which are in effect small off takes, will undoubtedly increase the operational and capital expenditure of a GDN which may need to develop resource with new expertise in new equipment, this should be taken into account in the price control.

Question 8: What information would distributed gas users find useful to help them connect?

This is predominantly a question for third parties wishing to connect to a GDNs system; however, we feel that the most relevant information would be :-

- i) Where is the nearest connection point?
- ii) What is the operating pressure tier at this point?

- iii) How much will it cost to connect (pipelaying and connection cost)? and
- iv) Does the network have the capacity to absorb the supply at the connection point 24 / 365 and, if not, what are the constraints?

Responses to questions (i) and (ii) are available from the GDN effectively by return. An indicative value for question (iii) can be provided by the GDN or an appropriately competent UIP generally within a reasonably short timescale, although in some circumstances this may require a design study. Question (iv) will require specific detailed analysis by the GDN and is likely to require a design study.

Question 9: Do you agree with our proposal to broadly continue with the shrinkage allowance mechanism and Environmental Emissions Incentive (EEI) adopted at GDPCR1?

Yes, we believe these two incentives have helped GDNs deliver emission reductions and that they will remain effective in the next price control.

Question 10: Do you agree with our proposed change to the valuation of carbon for the EEI to bring it in line with DECC's recommended approach?

Yes, NGN believes this will increase the strength of the EEI, the increased valuation will increase the scope of projects and initiatives available to GDNs to achieve further emission reductions.

Question 11: Should we retain a cap and collar on the EEI and at what level should any cap and collar be set? Should we introduce a cap and collar on the shrinkage incentive mechanism, and if so, at what level should any cap and collar be set?

This is the main area where GDNs can make a significant contribution to the low carbon agenda and we would like to see the incentives in this area significantly strengthened. The rationale for introducing caps and collars for the EET incentive was that Ofgem had not had time to review the leakage model (v1.3) at GDPCR1; subsequently Ofgem completed its own audit of the models and improved them in November 2009. Therefore NGN believes that the caps and collars on the EET incentive could be removed but we recognise given experiences elsewhere this is not realistic. It remains to be seen whether as Ofgem suggest, data arising from the rollout of smart meters will be more accurate than the leakage model which itself is based on extensive empirical and test data.

Therefore we support retaining the existing cap and collar on the EEI at an increased level of 20% to preserve the incentive's strength reflect the increased carbon value which will be effectively doubled under Ofgem's proposals to rebase the cost of carbon in the incentive rather than reducing to 5% as implied in the consultation.

The scope for windfall gains and losses is diminished from GDPCR1 as both Ofgem and the GDNs have developed their understanding of forecasting leakage and there is a track record of performance. Uncertainties arising from issues such as the repex programme should be minimised if there is scope for the GDNs to revise their business plans in the event of significant change to the repex programme - this uncertainty is too significant to be managed through use of the cap and collar on the EET incentive.

We do not support introducing caps and collars into the shrinkage incentive as the incentive is driven by both price and volume behaviours and therefore applying caps and collars aimed solely at volume performance will not have the intended effect.

Question 12: Do you agree with our proposal not to adopt a rolling-incentive mechanism for the EEI mechanism?

We do not support this approach as NGN believe the rolling mechanism would actually be welcome and would further strengthen the incentive. Whilst we acknowledge the difficulties raised by Ofgem in particular providing forecasts potentially up to 2029, we believe nevertheless there are ways to overcome such difficulties by using for example an approach of reviewing such forecasts at the mid control review.

Question 13: Do you agree with our proposal to require GDNs to report actual shrinkage data when the relevant data becomes available, with the intention that we will use actual shrinkage as the basis for the shrinkage allowance and EEI at future reviews?

We have no problem with collecting available data from the rollout of smart metering though we believe that benefits such data in recording and forecasting shrinkage remain to be proven in addition there are still uncertainties regarding the data that will be available and the timing of rollout. For these reasons we would suggest that obligation this can be accommodated within the RIIO framework for the next price control. If it becomes clear that such data is available and of use to measuring shrinkage there will be a clear onus on GDNs to include the use of such data in the business plans for RIIO-GD2. We believe a licence obligation in this area will be difficult to enforce and comply with given the uncertainties mentioned.

Question 14: Do you agree with our proposals to require GDNs to establish a code of practice outlining how they will identify and process unregistered sites? Do you agree with our proposals to require GDNs to report annually on the number of unregistered sites they have processed?

An industry wide solution is required in this area which sets out clearly the discrete obligations of shippers/suppliers and transporters in relation to such sites.

Unregistered sites, along with shipperless sites are currently subject to ongoing work by an industry working group and that for purposes of the following definitions are used:

- **Unregistered site:** A Meter Point within the Supply Point Register that has never been registered by a shipper.
- **Shipperless site:** A Meter Point within the Supply Point Register that has no current shipper, but previously had one.

xoserve currently produce detailed reports of such sites and issue these to shippers for resolution where there is evidence of shipper activity at a site (e.g. meter read submission, meter asset detail update). These may be either Unregistered or Shipperless and it is the responsibility of the individual shipper to actively confirm sites on the Supply Point Register where they are supplying gas. This action by the shipper should remove the site from the Unregistered/ Shipperless statistics.

For sites where there is no evidence of shipper activity these may be legitimately unregistered or shipperless and should not be capable of flowing gas and should therefore not require any action from the Distribution Network.

The GDNs along with xoserve are active in trying to resolve the current portfolio of shipperless/ unregistered sites but are reliant on shippers initially providing responses to the reports issued and actively undertaking the Supply Point confirmation where appropriate with xoserve. NGN believes that in the first instance the volume of unregistered and shipperless sites can be significantly reduced if shippers were to actively confirm the site on the Supply Point Register.

In light of the existing work that is ongoing, we believe that it is inappropriate to place additional obligations on GDNs through a code of practice and reporting requirements without first addressing the shortcomings of shipper obligations and incentives.

Question 15: Do you agree with our proposal to publish companies' business carbon footprint (BCF) as a league table to provide reputational incentives but not to provide an associated financial penalty/reward?

We agree with the use of reputational incentive as introduced for the DNOs. We also welcome Ofgem's proposal to fund well justified schemes to reduce carbon emissions. We do believe given the commitment from the GDNs go further and achieve consistent reporting across all three scopes of the BCF there is potential to introduce financial incentives on performance for example by expanding the EEI to cover such activities. The financial incentives mentioned (ETS and CRC) are fairly minimal, especially for companies of NGN's size and the risk of duplication is minimal.

Question 16: Do you agree with our proposals to publish other emissions and resource use but not to apply financial rewards/penalties?

We agree with the proposals to publish the data but believe the discretionary reward should be retained for this area of activity.

CHAPTER 3 – Customer Service

Question 1: Are there any aspects of customer service provided by the GDNs not captured by the proposed broad measure?

No, NGN believes the broad measure is fit for purpose in that it measures:

- Customer service through the quarterly satisfaction surveys in the 4 areas where our activities impact customers directly;
- Complaint handling reflecting how we handle matters when customer is not satisfied with the service delivered; and
- Stakeholder engagement. Reflecting how we engage with stakeholders and society as a whole.

Whilst we agree with the areas within the broad measure, the scale and mechanics of the incentives are simply not of sufficient scale and do not reflect the RIIO principle of putting customers at the heart of network regulation.

Question 2: Other than those specified, are there any other customer-GDN contact experiences that should be captured in the customer satisfaction survey?

It is important that the stakeholder engagement element of the broad measure is drafted widely to include issues around social responsibility. For example, NGN has a comprehensive engagement program delivering gas safety advice to young people across the north of England. Alternatively Ofgem could recognise this by providing ex-ante allowances.

Question 3: Do you agree with our approach to introduce a financial incentive linked to the successful resolution of complaints?

Yes, but we feel strongly that the level of financial incentive should be greater and be symmetrical with elements of risk and reward dependent on performance rather than solely a penalty only.

As a business NGN primarily seeks to reduce the overall number of complaints year on year and deliver continuous improvement in this regard and believe this should be incorporated as an element in the expanded incentive alongside the performance in resolving complaints.

Our suggestion as to how such a mechanism could work is to split complaints into three elements:

- Actual number of received complaints in a given year. This would largely be a comparative measure with reward for GDNs ahead of average performance. penalties for those behind the average outside a dead band for middle ranking .
- Complaint reduction over a period of years. This would largely be an absolute measure year on year with improvement or deterioration beyond a fixed percentage attracting reward or penalty.
- Speed of resolution broadly along the lines proposed by Ofgem but with the addition of a reward element.

There are detailed definitional issues that would have to be addressed but we believe these could be overcome. NGN believes this approach could undertake a trial prior to actual implementation to test the process.

As NGN agrees with the proposal to introduce a financial incentive linked to the successful resolution of complaints. Whilst it is in the clear interest of the GDNs to resolve complaints quickly and effectively, and the vast majority of issues can usually be resolved in such a way, there will always be

complainants who cannot be satisfied. Normally these are referred to the Energy Ombudsman service but a small number go through that process and the complainant is still dissatisfied. We believe Ofgem needs to recognise this and work it through the proposed trial.

Question 4: Do you agree with our proposal to introduce a measure associated with resolving complaints alongside the existing guaranteed standards?

Yes, those GDNs which are particularly effective in resolving complaints quickly, ahead of the GSOS requirements, should be recognised and rewarded not simply avoid being penalised.

Question 5: Should we retain the discretionary reward scheme, given our proposed stakeholder engagement mechanism as part of the broad measure?

The Discretionary Reward Scheme (DRS) should continue, and be used to provide incentives against activities not included in the broad measure.

Fuel Poverty gas network extensions, reducing leakage from the network and carbon monoxide safety have so far been the main elements of the DRS and are not captured in the broad measure. However, our stakeholders may highlight other areas of activity – currently not part of the DRS - which they believe should be a focus for the GDNs in the future and which the GDNs in turn may feel are worthy of recognition through the DRS. NGN will highlight any such activities in our Business Plan in July. For example, providing generic gas safety to advice to young people via a comprehensive campaign with schools could be one potential activity to be included.

Question 6: What interest groups should be considered when designing the customer satisfaction surveys and approach to assessing stakeholder engagement activities?

NGN believes that it is important that customer service and survey 'professionals' should be involved in the design of the new surveys. Their input would guarantee a 'best practice' approach in the development of the new parameters. For example, the Institution of Customer Service (<http://www.instituteofcustomerservice.com>) is a national organisation worthy of consideration, as are Accent (known to Ofgem and the GDNs) and The Leadership Factor (<http://www.leadershipfactor.co.uk>).

Question 7: Do you agree with the proposed size and structure of the financial reward/penalty associated with each element of the broad measure?

As per our response we believe the size and structure of the incentive should be revised. Overall, NGN believes that Ofgem's proposals deliver the potential for far greater penalties than potential for reward for outperformance for GDNs. NGN believes this needs to be addressed to deliver a greater suite of incentives and a greater balance between penalty and reward. There also needs to be a recognition that for GDNs to deliver consistent out performance, and to become a frontier performer, there frequently has to be investment in the business to deliver a more effective and efficient business model.

The current framework delivers a +/- 1% of revenue incentive framework, which for NGN equates to £3m per year at the extreme levels of performance. Whilst this is not an insignificant sum, NGN believes that it is more appropriate to have a +/-2% incentive which would put customers truly at the heart of the new regulatory framework.

Question 8: Will the fact that we will not be consulting on the size of the dead band before the end of 2011 prove to be a significant issue for companies/showstopper for fast track agreements?

NGN would expect that all major financial elements of a regulatory contract would be in place prior to any GDN being identified for a fast track. This individual element would not appear to be a show stopper on its own. Ideally an indication of the likely scale should be given in the March document.

CHAPTER 4 – xoserve

Question 1: Do you agree with the scope and the timing of the review?

xoserve's current role primarily delivers Transporter UNC obligations and any change to the existing governance, funding and ownership should be aligned to changes in primary activity and obligations of xoserve and the GDNs. The scope and timing of the Ofgem proposed review seems appropriate given the uncertainty surrounding the scope of the DCC and the extent to which Transporter obligations currently discharged by xoserve will be transferred to other parties as a result of the Smart Metering Implementation Programme (SMIP) and the implementation of the Smart Energy Code (SEC).

Question 2: Are there any issues with xoserve that we have not considered that you think are relevant to a review?

None.

Question 3: Do you think xoserve will be able to deliver the requirements for the smart metering programme and Project Nexus?

As noted in question 1 above, the scope of SMIP, the DCC and the SEC are yet to be established, however, given xoserve's current role as a central service provider of complex IT systems and delivering industry driven change we are confident that xoserve would be capable of delivering reasonable requirements for smart metering. .

Project Nexus is currently in a requirements gathering phase, and through extensive interaction with industry the initial requirement aspirations are being considered as the baseline for future functionality. These requirements will be impacted by the ongoing SMIP developments and NGN is confident that xoserve will be able to deliver appropriate system replacement and/or changes.

CHAPTER 5 – Social obligations

Question 1: Is the fuel poor network extension scheme still the most appropriate way to assist the fuel poor?

Yes, connection to mains gas is the best way to reduce heating costs for fuel poor households and will remain so over the foreseeable future. Currently the differential with other forms of heating is several hundred pounds per annum.

Question 2: Which is the best mechanism for delivering fuel poor network extensions?

We agree the current mechanism is overcomplicated for the financial sums involved. We do not agree that GDNs are over rewarded for undertaking this work. There is a significant amount of discretionary spend we put into this area which is not funded through the current incentive (e.g. funding we provide to partnering organisations).

NGN prefers to retain the central element of the existing approach with a fixed amount per customer and if the connection costs less than this amount then the GDN retains a proportion of the outperformance in line with the IQI incentive rate. This incentivises GDNs to deliver fuel poor connections at the lowest possible cost.

Of the two options set out by Ofgem NGN prefers option 1 as this retains the some incentive properties and fits better into the RIIO framework by having a measurable output for the revenue requested. The level of regulatory reporting and burden under either of the options is not likely to be significantly different.

Question 3: Are there other incentives or mechanisms we could put in place to play a role in delivering non-gas solutions?

As a gas business we have concerns over Ofgem seeking to place obligations upon us relating to non-gas solutions. We do not have expertise to advise on such solutions.

Question 4: Is it appropriate to fund GDNs through the price control for their activities in relation to reducing risks of CO poisoning?

Yes we believe that it is appropriate to provide ex-ante funding for specific CO initiatives which should form part of companies business plans. We do not see why this should be excluded from business plans as Ofgem suggests.

This should not primarily be through a separate incentive mechanism but allowed through the price control and where relevant include ongoing operational expenditure. In NGN's view this is the most appropriate mechanism to ensure that GDNs take a proactive rather than a reactive approach to issues associated with CO poisoning.

Question 5: Are there any identifiable output targets that could be associated with reducing CO poisoning risks?

In line with the RIIO principles if funding is to be incorporated into the price control then there has to be some clear measure of output. Further, there needs to be a scaling factor linked to the amount of funding so if business plan submissions contain significant funding requests then measureable outputs should be considered.

There are two areas of CO activity – general awareness and detection/role of emergency service.

On the key area of awareness, a successful campaign will initially and for some sustained period possibly show a rise in CO related work load figures and will not in the short term provide comparative benchmarking figures, however in line with the longer term drive of the RIIO we may see a reduction in numbers, however if the escape figures in general are used as an example the 30/30 programme has not so far delivered the expected drop in PRE that was previously anticipated. With this in mind fixing targets could be difficult as any incentive would/could see a prolonged increase in work load, with no definitive method for measuring consumer awareness.

Having considered the above, we believe suggested potential targets could be;

- Number of customers visited and provided with CO literature;
- Number of customers visited and provided with CO analysis checks; and
- Reduction in number of CO reports (although it is expected in the early years of the PCR reports will increase as awareness is raised).

NGN recognises that emergency service response could include testing for the presence of CO within a customer's premises, over and above the current visual checks that are undertaken by a First Call Operative. The testing would require the FCO to have suitable detection equipment, additional training and to spend more time on site, there would also be changes required to IT systems to capture data which would allow trends to be analysed.

The testing would be limited to atmosphere checks within the premises and where necessary in adjacent or adjoining premises but would not include physical checking of appliances as this activity should remain with the downstream service providers.

The CO checking would be supported by which collectively would provide expert advice from the FCO and the provision of CO related literature, collectively this offers a comprehensive safety check for the customer and is in addition to the gas escape checks which would also be undertaken.

The provision of extended CO checking would require additional funding for equipment, training, procedure amendments and system upgrades and would be embedded into the annual costs of running an emergency service.

Trend analysis and performance outputs would be provided as part of the CO emergency service provision.

The decision to include this activity within our emergency service is a major one with significant costs which we are currently seeking to identify. We are also exploring in our stakeholder engagement activities the value customers would put on such a service. We believe this is an area in which Ofgem should also focus its stakeholder engagement work as the decisions in this area we feel should be made on a national basis.

Question 6: Are there any other social issues for which we should be setting outputs?

The main social issues which NGN has addressed in the past have covered Fuel Poverty, Carbon Monoxide and generic gas safety. NGN believes there may be other social obligations which it should be addressing and which could be identified as part of the current Stakeholder Engagement process. NGN will identify any such issues in its Business Plan in July.

CHAPTER 6 – Connections

Question 1: Are the current arrangements for charging margins in gas connections appropriate? Is there a need to introduce regulated margins for potentially contestable market segments for the gas connections market (as we did for electricity at DPCR5)?

There appears to be no case or need to change the existing arrangements. The only area of connections where competition has not developed is one-off domestic work. The introduction of a regulated margin would in our opinion have little impact on competition as it is largely other factors (e.g. domestic load connection allowance and streetworks legislation) which are influencing customer behaviour.

Question 2: Are there market segments where competition works sufficiently well, where we should consider excluding these market segments from the guaranteed standards regime?

Connections to new housing and I&C connections by Ofgem's own analysis are competitive. However, NGN has no issue with retaining the existing standards.

Question 3: What, if any, new standards do you consider are required to ensure that gas connections customers receive a good standard of service?

The existing suite of standards for exit connections is extensive and we don't see any need for further standards for this type of connection at this time.

Question 4: Should we extend existing standards to distributed gas customers? We would also welcome views on whether any new service standards should be introduced for distributed gas, and whether we should revisit this issue during the price review (once the market has developed)?

We agree with principle of introducing standards to ensure that distributed gas customers receive a minimum level of service from GDNs when connecting to the gas distribution network.

However, at present the scope of the GDNs responsibility in facilitating distributed gas connections is unclear. GDNs can provide the connecting pipeline for new source of gas entering the network. However, going forward, the GDNs may also have the responsibility in providing the gas quality monitoring and odourisation equipment and will be recovered within transportation charges, that will also facilitate their connection. In addition, there is little experience of providing such connections on which to base any such standards.

This issue should be reviewed midway through the RII0-GD1 period when both the scope of services provided by the GDN is clear and there is evidence to support the appropriate standards to introduce and the appropriate levels for each.

Question 5: Should we change any of the existing standards' timescales, penalties, or caps on the penalties (for example, to bring them into line with the guaranteed standards in electricity)?

There is no evidence of failings in the service provided by gas networks that need to be addressed by bringing in the electricity standards. We see no value in making changes simply for alignment between the 2 sectors.

CHAPTER 7 – Safety

Question 1: Do you have any views on the primary output and secondary deliverables for gas distribution safety including whether:

NGN support the use of primary outputs and secondary deliverables to measure and demonstrate the safety performance of GDN's.

In the repair activity we strongly support the inclusion of the 12 hour prevention standard. This is data that is currently recorded and reported to the HSE. It also has the environmental benefit of reducing the amount of gas escaping into the atmosphere. Therefore Ofgem should consider the use of the 12 hour deliverable for repair as a primary measure, this would demonstrate the importance of completing repairs in the shortest time scale this would be seen very much as a proactive output.

The change in risk score for repair activity should be a secondary deliverable and should be focused on deferred repairs which is a reactive output. The approach aligns to the GDN emergency procedure which requires higher risk repairs to have immediate action. Therefore those that are deferred have much lower risk scores.

(1) These are the appropriate areas to focus on?

The outputs developed by the Ofgem/HSE/GDN working groups are focused in the appropriate areas. More work is required to fully develop each measure, including further consideration of whether any of the output areas besides repex should have more active incentive arrangements to encourage improved performance.

(2) There are any other areas that should be included?

In addition to the safety outputs defined by the working group within NGN we measure our safety performance by reference to a range of process safety outputs. The primary two measures we use are lost time injuries to our employees and contractors and injuries to members of public caused by our works. Any business plan produced by NGN will contain these measures.

We recognise this is an area where primary responsibilities rest with companies and the HSE not Ofgem but NGN believes these should be included in any report on safety performance.

(3) The performance of the GDNs in undertaking their maintenance programmes should be used as a secondary deliverable for reliability?

In principle NGN would have no issues with a secondary deliverable related to maintenance. However, some consideration needs to be given as to how such a measureable would work. Simply measuring number of completed visits or work carried out may not give an accurate picture of the effectiveness of maintenance work. We will give further consideration as to how such a measure could operate.

(4) You agree with our approach to changing the revenue driver for repex from length of main decommissioned to a volume driver of risk removed?

NGN does not have enough of an understanding of how such a revenue driver would operate to be able to give a clear opinion. At present we believe there are significant challenges in developing a workable mechanism for such a driver.

The risk methodology is a dynamic process and it should be noted that risk scores can and do change constantly therefore it will be difficult to precisely calibrate a revenue driver. Distinguishing changes to risk from work carried out by a GDN as opposed to that from dynamics within the modelling may be problematic. Further detail on these concerns is provided in response below to Question 2 in Chapter 9.

Currently it is possible to get cost data on pipe laying and abandonment ratios to derive the calibrations in the existing revenue driver based on length and diameter of mains abandoned. It is not clear how the revenue metrics for removing an individual element of risk can be calibrated. Risks associated with services are also not currently included within the risk modelling so how these would be incorporated into a revenue driver also needs to be considered.

Given this proposal from Ofgem we will give further consideration as to how such a driver could operate and whether the issues we have highlighted can be overcome.

Question 2: Do you agree with the proposed approach of not imposing further incentives relating to safety?

The incentives around safety outputs are overwhelming based on penalties for any failures. NGN has no issues with being accountable for any performance issues in the safety arena but we believe there should be active rewards for improving performance against the safety outputs alongside the penalties.

We recognise this is an area which needs careful consideration. However, NGN has had successful experience of using incentives in safety outputs with our outsourced operator which leads us to believe that such incentives do encourage improved performance.

In our opinion GDN's should have an incentive to outperform base line performance levels and a reward mechanism should be put in place for outperformance in the following areas:

- 12 hour repair of gas escape with a base line of 60% of all outside escapes received;
- 1 and 2 hour emergency response times with a base line of 97% of total reports received in each category;
- Gas escapes completed within 7 days with a base line of 75% of all confirmed outside escapes;
- Gas escapes completed within 28 days with a base line of 95% of all confirmed outside escapes; and
- No of CO reports attended and made safe.

CHAPTER 8 – Reliability

Question 1: Do you have any views on the primary output and secondary deliverables for gas distribution reliability including:

NGN supports the proposed output measures in this area and fully supports and welcome the development of asset health indices for gas distribution. The measures identified are appropriate but there is further work required to determine the exact measures. As with the safety outputs we believe further consideration needs to be given to the incentive framework around the reliability outputs.

Network capacity primary measures should align to 1 in 20 firm supply points, as this will focus on input / output constraints of key pressure reduction stations and not network pipe capacity which is too dynamic to provide accurate measures.

(1) Whether these are appropriate areas to focus on?

We believe these are the appropriate areas to focus on.

(2) Whether any other areas should be included?

We have no further suggestions at this time.

(3) Whether it is appropriate to remove the cap on the guaranteed standard for supply restoration and change the level of payments?

NGN does not believe it is appropriate to remove the cap on the standard for supply restoration nor change the level of payments. There is no evidence of significant problems with GDN performance in supply restoration that would merit such changes. The gas distribution network has a relatively low level of supply failure compared to other utility services.

(3) The appropriate form of secondary deliverable on the time taken to address network faults?

With NGN we use the percentage of premises restored within 24 hours for incidents of less than 250 properties excluding water ingress incidents effecting more than 10 properties as our output measure in this area.

(4) Whether there should be a secondary deliverable associated with offtake meter errors?

Given the feedback from stakeholders on the potential impacts of errors in this area we agree with the proposal to have this as a secondary deliverable. Offtake meter errors if used as a secondary deliverable should have an agreed tolerance trigger aligned to the accuracy tolerance of the specific metering apparatus, this would take into account the different accuracy levels for example orifice plate versus ultra sonic meters.

Question 2: Do you agree with the proposed approach to reliability incentives?

The incentives around reliability outputs are largely based on penalties for failures. GDN's should have an incentive to outperform base line performance levels and incentives should be considered in relation to :

- No of supply losses not relating to third party interference over 250 properties
- No of supply losses resolved within 24hours not including over 250 properties or water ingress incidents effecting 10 or more properties
- No of poor pressure reports from customers
- No of pressure excursions offtake meter errors outside agreed tolerances
- No of reportable gas quality notifications

Question 3: We would welcome respondents' views on our proposal to require GDNs to develop their approach to valuing interruptible capacity to include a real option value, and views on how to achieve this.

We welcome Ofgem's proposals here. We believe there is also further scope to incorporate the uncertainties around existing and future interruptible requirements particularly those associated with large industrial and commercial customers that are invariant to underlying gas demand. If determined properly, allowances based on a real option value for interruption will enable NGN to manage network capacity provision throughout the next price control without the need for mechanisms such as capex re-openers which is of clear benefit to consumers.

CHAPTER 9 – Broader approach to asset risk management

Question 1: Do you have any views on our proposed approach to the development of asset health and risk metrics including:

- (1) The approach to the assessment of asset health
- (2) The number and definition of primary asset categories
- (3) The assessment of criticality or consequences of failure
- (4) The development of replacement priorities/risk metrics

The proposal to use asset health metrics aligned to those used in DPCRS is supported by NGN. However as Ofgem is aware there is significant resource and costs to collate detailed asset condition measures. It should also be noted that developing and populating asset health matrix may extend into the start of the next PCR period and therefore a phased implementation would be appropriate.

Consideration should also be given to aligning criticality with different levels of security of supply. For example at individual district governor and aggregated level of district governors within a network, and that are collectively fed from a pressure reduction station, and then into an offtake station.

Significant care should be exercised when trying to measure and compare risks across different asset types such as metallic pipes against gas holders. This is due to complexity and unique features of each asset and therefore risks associated with replacement should only be measured within asset types.

NGN have already undertaken a number of projects to develop further of understanding of the condition of its asset base and develop enhanced models to inform investment decisions. An internal working group has been established which has focused on above ground assets to complement the existing below ground pipe replacement programme. Risks in terms of security of supply, safety and environmental impact have been evaluated, and although further work is required to develop system driven scoring models NGN believes we are at the frontier of developing asset health indices within the gas distribution networks.

Now that Ofgem have provided guidance on the way forward with asset health measures NGN are confident that they can develop enhanced decision models to inform long term asset investments using risk and criticality profiles.

Question 2: Do you have any views on our proposed approach for the revenue driver associated with repex?

NGN understands Ofgem's desire for the GDNs to report on the amount of risk remaining from the iron pipework network on an annual basis. We believe that, although potentially challenging and currently with some uncertainties and ambiguities; tools, techniques and protocols could be developed to allow this to be reported annually ex-post by the GDNs in a way that is reasonably consistent, robust and demonstrable, although containing levels of uncertainties. NGN would be happy to engage with Ofgem and the other DNs for the development of such processes.

NGN does not fully understand how the forecast / targeted removal of a specified level of calculated risk posed by iron pipes, either per year or across the formula period, could work as the principal revenue driver for repex. Our concerns over the practicality of how such a driver may work are as follows.

- The MRPS model is (by design) extremely dynamic and can vary considerably over time in order to reflect changes to the performance of pipes in the network and ensure that pipes are appropriately prioritised based on risk. The changes in scores of individual pipes is unpredictable and can be significant, driven by
 - The performance history of an individual pipe
 - The performance history of other pipes in its vicinity
 - The performance of the total national population of pipes of that type
 - The presence or absence of explosion incidents nationally
- Many of the drivers for these changes are entirely outside the control of an individual GDN (for example, recent experience has shown that the number of failures of iron pipes can be strongly influenced by weather events, driving a significant increase in the total level of calculated Risk for iron pipes), and it would not be possible to forecast these even a short time ahead to allow for the setting of a risk-reduction target and an associated revenue driver.
- We do not believe it would be possible, based on a year's actual risk score movements, to correct the change in total risk due to iron pipe replacement separate from dynamic changes in the model, in a way that would robustly support the movement or payment of significant amounts of repex.

- The HSE volume driver is linked to delivering the requirements of the Enforcement Notice – i.e. to cease conveying gas in iron pipes within 30m of buildings by 31st March 2032. Unless this enforcement is revoked or modified, introduction of an annual or periodical Risk Removed target would set a second minimum threshold, both of which would need to be cleared, which would inevitably drive additional work.
- Services are not within the current risk model yet form a significant proportion of overall repex expenditure.

At the moment we don't see any mechanism for overcoming these concerns but we will consider whether there approaches that would overcome these issues.

Any revenue driver based on the reduction in total iron pipe risk will need to incorporate other drivers and efficiency incentives for the carrying out of repex activities on distribution pipe assets for reasons other than the MRPS risk score; e.g. small diameter steel mains, condition replacement, non-chargeable diversions (including built-over pipes), etc.

We support the development of new techniques for taking iron mains off-risk. It should be noted however that the only method of removing the risk posed by an iron gas pipe is to cease using it as a gas-containing component. All of the existing methods (e.g. abandonment following open-cut lay, dead insertion, live insertion) or potential new techniques (e.g. high-build cured-in-place spray lining) are designed to deliver this, and the GDN is incentivised to ensure that the most efficient suitable technique is chosen in each individual circumstance.

In section 9.22, Ofgem state that "GDNs currently received allowed revenues relating to repex depending on the length and diameter of mains replaced. This means that the only incentive they face is to procure repex services efficiently.". It should be noted that the GDNs periodical agreement of an Approved Programme under PSR Regulation 13A is in two parts; firstly, an agreed total length of iron pipe to be taken off risk within the period and secondly (and crucially) an agreed methodology to be used when selecting pipes to be included in the replacement programme. This methodology is detailed within NGN's internal Policies and Procedures as NGN/PM/REP/2 and is specifically referenced within the Safety Case. This requires that the selection of pipes included within projects for the year is "informed by risk". Within NGN, the methodology used is referred to as "20/70/10". When REP/2 was first introduced in Transco in 2002, this included the "20/70/10" methodology which was externally assessed and shown to be an efficient method of removing risk from a population of pipelines with varying risk scores. Under the current Repex formula the GDNs is incentivised to deliver the efficient abandonment of iron pipes. However, as the agreed method of generating projects requires us to select a risk-efficient mix of pipes, the current arrangements also incentivise the efficient removal of risk.

Question 3: Do you have any views on our proposed uncertainty mechanisms associated with the repex review?

We agree with the premise that, if the outcome of the repex review suggests that a radical change is required to the GDNs repex plan, it would not be possible to complete this in a robust and well-evidenced way before July 2011.

Should further flexibility be allowed following the review, allowing substitution of workload between asset classes subject to being able to demonstrate at least equivalent risk removal benefit to customers, the GDNs may need to specify and collect significant new data in a way that is not currently being done. In such circumstances such changes should be introduced at the mid period review of outputs.