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To gas shippers, gas storage operators, National Grid Gas Transmission, consumers and their representatives and other interested parties

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Gas Transmission Charging Review: Confirmation of policy view and next steps

We launched the Gas Transmission Charging Review (GTCR) in June 2013 with a call for evidence.[1] We[2] considered a review was required because of significant and ongoing changes to the patterns of gas flows in the Great Britain (GB) National Transmission System (NTS), as well as emerging EU legislation to harmonise transmission charges, the Network Code on Tariffs (TAR NC).[3] In this context, GTCR is our review of the gas transmission entry charging regime in GB. Its aim is to ensure that we have arrangements which enable the provision of a safe, secure, high quality transmission network system that delivers value for money to existing and future consumers.

The scope of the GTCR was determined through industry consultation[1] at the outset where we agreed that it would focus on changes to Transportation Owner (TO) entry charging which were being considered in TAR NC.

This scope allowed us to consider the implications of abundant spare capacity on the network and the fact that there is an increasing reliance of National Grid Gas Transmission (NGGT) on the non-locational TO entry commodity charge to recover its allowed revenue. The GTCR did not consider the underlying methodology for setting transmission charges, nor the total revenues raised by these charges (ie TO allowed revenues). Annex 1 sets out further the scope of the review.

On 12 December 2014, we published our policy position[4] on GB gas transmission entry charging regime. The December 2014 document set out our policy proposals in full, together with the reasons why we thought they would improve the current charging regime. On 30 January 2015, we also published our assessment of potential impact.[5]

[1] https://www.ofgem.gov.uk/publications-and-updates/gas-transmission-charging-review-%E2%80%93-call-evidence
[2] The terms "the Authority", "we", "us" and "our" are used interchangeably in this letter. The Authority is the gas and electricity markets authority. Ofgem is the office of the authority.
[3] TAR NC will need to be implemented in GB in the next few years and could lead to significant changes to the GB regime
[4] https://www.ofgem.gov.uk/publications-and-updates/gas-transmission-charging-review-our-policy-position-future-charging-arrangements
[5] https://www.ofgem.gov.uk/publications-and-updates/gas-transmission-charging-review-gtcr-part-ii-our-assessment-potential-impacts

In summary, we proposed two key changes:

1. Introducing 'floating'[6] capacity charges for entry capacity including long-term capacity products at all entry points (domestic, with the exception of storage users,[7] and interconnection points (IPs)); and

2. Reducing the reserve price discounts for short-term entry capacity products at all points (subject to the final text of TAR NC[8]).

The December 2014 publication marked the beginning of our consultation that closed on 27 March 2015.

We had a good response to the consultation. We received 23 responses, six of which were confidential. We have published the non-confidential responses on our website. These consisted of responses from 15 gas shippers (responsible for 70% of the gas transported in transmission network in 2012-13), storage facility operators, an interconnector operator, industry organisations, and NGGT. Respondents' opinions were divided on the proposal to introduce floating capacity charges at all entry points, with 14 opposed to the proposal, four supporting it and the remaining six largely neutral. The majority of respondents either supported or were neutral on the proposal to reduce the discounts for short-term capacity, with only four respondents disagreeing. Annex 1 provides a more detailed summary of the comments we received to the consultation and our responses.

Having carefully reviewed and considered all of the consultation responses, and taking into account the status of the development of TAR NC, our views on next steps are as follows:

- Regarding floating capacity charges, we maintain our policy position of supporting floating capacity charges at all entry points. However, we consider that the timing is not right to proceed to the implementation of floating capacity charges at all entry points (domestic and IPs) at this point.

- Regarding the discounts applied to short-term capacity products at domestic entry points, we maintain our policy position that these should be reduced. We look to the industry to take forward this recommendation, with due regard to developments at European level in this area.

We explain the reasons for our policy view below, as well as our recommendations on how the GTCR work should be taken forward.

Introduction of floating capacity charges

We continue to support the introduction of floating capacity charges at all entry points as we further explained in our policy publications.[4,5] We believe that floating capacity charges align better with core economic regulation principles, in particular cost reflectivity, compared to the existing arrangements that rely on a commodity charge to recover the

[6] This would mean the price paid by a user in the capacity auction will 'float' up (or down) where NGGT under-(over-) recovers its allowed revenue in the year the capacity is used. The floating element would apply to all capacity holders, regardless of whether they flow gas. This would replace the current 'variable commodity charge element', which is levied only on shippers who flow gas onto the system.
[7] In our policy position publications, we proposed that storage users would not pay the floating element of capacity charges, preserving the existing arrangements whereby they don't pay the commodity charge.
[8] The current version of the TAR NC would not allow discounting of capacity charges at IPs.

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majority of NGGT's allowed revenues. However, there are good reasons not to commit immediately to floating charges at all points.

The primary reason is the ongoing uncertainty about the final provisions of the TAR NC relating to capacity charges and hence what changes GB will need to implement and integrate. Development of the TAR NC has fallen significantly behind the schedule originally envisaged by the European Commission (the Commission). As of the time of writing, ACER[9] has not put forward a recommendation to the Commission on the current text of the code, as developed by ENTSOG.[10] The Commission has indicated that it will 'pick up the pen' and intends to re-draft the text of the code by end-2015. However, we do not expect formal comitology to conclude before Q2 2016. Evidently, the text of TAR NC remains subject to considerable uncertainty. Aspects that remain unclear (either in the final form of the text or in how it will be implemented in GB) include the limitation or otherwise on the use of fixed price capacity at IPs, the potential treatment of existing contracts at IPs ("grandfathering"[11]) and the requirement for a single regulatory account.[12]

Uncertainty of TAR NC notwithstanding, if the final text of the code were to continue to prohibit fixed price capacity sales at IPs[13], then not proceeding with a move to a floating regime at all points would imply that GB would default into a 'dual regime'. This would consist of floating charges at IPs only (as mandated by TAR NC) combined with the existing 'fixed capacity + variable commodity' regime at domestic entry points. The GTCR did not explore the feasibility of this dual regime scenario in detail. However, our initial view is that it may prove challenging to implement and that it is likely to add significant complexity to the charging arrangements. Our view is that the functioning and implications of a dual regime should be further considered.

We therefore invite NGGT and the industry to followup on the analytical work of GTCR in the context of preparing for the implementation of TAR NC. Specifically, this could be achieved by exploring the following two linked work streams:

- The technical and economic feasibility of a dual regime. In addition to the complexity of the practical aspects of implementing a dual regime (such as IT system changes), the work stream would consider the additional complications of ensuring compliance with expected outcomes of TAR NC (particularly the application of the cross-subsidy test[14] where fixed prices are used at domestic points).

- The practical aspects of moving to a regime with floating capacity charges at all entry points (domestic and IPs), taking into account the currently unclear aspects of the TAR NC. This could consider transitional arrangements (in particular the impact on charges payable by existing capacity holders).

[9] The Agency for the Cooperation of Energy Regulators (ACER).
[10] The European Network of Transmission System Operators for Gas (ENTSOG) is an association of Europe's transmission system operators (TSOs).
[11] The current version of the TAR NC includes provisions to exempt capacity contracts signed prior to 29 November 2013 from changes to the level of transmission tariffs, where such contracts foresee no change in their level except indexation.
[12] The TAR NC provides for a single regulatory account. This aims to prevent the ring fencing of revenues from transmission services provided to different users. Where there is under- or over-recovery of revenue, it will be aggregated and allocated using the system's reference price methodology in the following tariff period. For example, rather than under-recovery from a point being recovered from that same point, it will be socialised over all points. There is no ring fencing of revenues from particular points or ring fencing of entry and exit revenues.
[13] At the time of writing, fixed-price capacity can be sold for existing capacity (capacity that is not offered as incremental capacity) only by those TSOs that do not have an allowed revenue and hence bear the risk of under-recovery.
[14] The TAR NC Cost Allocation Test aims to limit the level of cross-subsidy between domestic points and interconnection points by comparing their respective ratios of Transmission Services Revenues to costs. The TAR NC suggests that the ratios should not differ by greater than 10%.

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We anticipate the Joint Office will create and manage a Uniform Network Code (UNC) Workgroup(s) to carry out the above work streams. We expect NGGT or other industry participants would propose changes to the charging regime by raising proposed modifications to the UNC.[15] Initial work on both work streams should commence as soon as reasonably practicable but we would not expect to make a decision on any UNC modification proposals until after the text of TAR NC is finalised and its implementation date is known.

Changing the charging arrangements for short-term capacity products

We recommend reducing the level of discounts applied to short-term capacity products. We note that the current version of the TAR NC does not allow discounting at IPs.

We therefore propose that the Joint Office should create and manage a UNC Workgroup to implement the reduction of the 100% reserve price discounts for on-the-day and interruptible capacity products, and the 33.3% reserve price discount for day-ahead capacity. We expect this Workgroup to work out the exact discount structure. We expect NGGT or other industry participants would propose changes to the charging regime by raising proposed modifications to the UNC. This work stream should commence as soon as reasonably practicable but we would not expect to make a decision on any UNC modification proposals until after the text of TAR NC is finalised.

Conclusion

This summary of our policy view and recommendations on next steps marks the end of the analytical work undertaken via GTCR and a transition to preparing for TAR NC implementation. We recognise that details remain to be worked on, particularly regarding implementation. These were not foreseen as part of the GTCR scope and will now be considered in the TAR NC implementation phase, together with aspects of the GB charging regime that TAR NC may affect.

We will work with NGGT and the industry over the coming months on our proposed approach.

Rob Mills
Head of Gas Transmission, Gas Networks

Annex 1

[15] In accordance with the standard UNC modification process, under which we would make a decision on whether or not to approve any material change.

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Annex 1

Summary of consultation responses and our views

We received 23 responses to the consultation on policy position and assessment of impacts published in December 2014 and January 2015 (hereafter referred to as policy position publications). We have published the 17 non-confidential ones on our website (excluding any confidential annexes). Responses were received from 15 shippers (representing 70% of gas flows onto the NTS in 2012-13), four industry organisations, NGGT and three others.

Respondents' opinions were divided on the proposal to introduce 'floating' capacity charges for entry capacity at all entry points (domestic and IPs), with 14 opposed, four respondents supportive and the remainder largely neutral. The majority of respondents either supported or were neutral on the proposal to reduce the discounts for short-term capacity, with only four respondents strongly disagreeing.

For the purposes of this summary, we have grouped and replied to the respondents' views in the following categories:

- **Floating capacity charges at all entry points** (hereafter referred to as floating capacity charges or the floating element)[6],
- **Reducing discounts for short term capacity,**
- **Implementation of both proposals,**
- **Beyond GTCR.**

We have necessarily paraphrased some respondents' comments when grouping and summarising them.

Floating capacity charges at all entry points

We are concerned that the current regime means that historical network investment is not recovered from all users in a cost reflective way. Specifically, the shortfall in recovery of historical network costs from the fixed capacity entry charge is currently made up via the commodity charge, which in 2014 represented 69% of total TO entry revenues and is forecast by NGGT to be 82% for the formula year 2016-17.[16] This charge is levied only on shippers who flow gas onto the network; shippers who buy capacity but choose not to flow benefit from a cheap 'option to flow'. The introduction of floating capacity charges would ensure that all users who benefit from the availability of a reliable network contribute towards the historical costs. It transfers the burden of revenue under-recovery from the current commodity charge to the new floating capacity charge. We consider this would be more cost reflective and would ensure that NGGT has better information for network management[17] which could lead to marginal NGGT operational efficiency improvements, and a positive dynamic effect on consumer bills over time. Most respondents commented on the fundamental principle of the floating charge. Their comments fall into ten main categories:

<u>Suitability of current regime</u>
Five respondents felt that the current regime is inefficient, unfairly penalises users buying long-term capacity, and that it distorts cross-border flows. Of these respondents, only three

[16] From Table 13 of NGGT's Quarterly Charge Setting Report – Indicative April 2016, which forecasts the revenue from charges. Therefore, the proportions are only indicative. http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Tools-and-Models/

[17] A cheap option to flow may, all else being equal, incentivise shippers to book capacity that they are unlikely to use. This generates misleading signals for NGGT in management and reinforcement of the network. In 2013-14, the total winter flows on the network only constituted 22.5% of the capacity booked for that period.

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fully supported the proposal for floating capacity charges, believing it would address these weaknesses.

However, the majority of respondents did not consider there was a compelling case for changing the current regime. Nine respondents did not consider the commoditisation of historic costs and overbooking of capacity a problem in an unconstrained network. Four respondents argued that there is no evidence that the current regime has detrimentally affected the recovery of historic investment, resulted in market failure or negatively affected consumers. Eight respondents thought the proposal would not address under-recovery of NGGT's allowed revenue, result in more efficient or equitable allocation of historic investment costs, or improve the investment signals. Two respondents stated that the proposal doesn't justify the "undesirable impacts and costs" arising from amending the current regime.

Our view

The proportion of NGGT's allowed revenue recovered from entry capacity charges has been falling while revenue from commodity charges has increased. This leads to inefficient apportionment of historical network costs, encourages overbooking and affects cross-border flows.[18] We think that this has highlighted weaknesses in the regime and our policy position publications shows that floating capacity charges would address these issues and ensure more cost reflective charges to recover NGGT's allowed revenue.

Alternatives to the floating capacity charges

We described two alternatives to the proposal for floating capacity charges in our policy position publications: a 'dual regime' of floating capacity charges at IPs, as mandated by the EU Tariff Network Code (TAR NC[3]), combined with the existing fixed capacity charges at domestic points; or a regime where future fixed capacity prices are adjusted for inflation. We did not consider that either alternative would address our concerns about the shortcomings of the current regime identified above.

Five respondents considered that the alternatives to the floating capacity charge proposal would either be too complex to administer (in the case of a dual regime), or would not address the problem of under-recovery when long-term bookings are declining (in the case of adjusting future prices for inflation). However, seven respondents disagreed, arguing that a dual regime would allow the impact of implementing floating capacity charges at IPs to be evaluated before wider roll out to domestic points or that adjusting future prices for inflation would address the under-recovery and be more consistent with the exit regime.

Our view

We maintain that adjusting future fixed capacity prices for inflation would not resolve the problem of under-recovery in an unconstrained network. However, the GTCR did not explore the feasibility of a dual regime in detail. We think that a dual regime is likely to add significant complexity to the charging arrangements and, as set out in the main letter, may be incompatible with the requirements of TAR NC (eg the cross-subsidy test[14]). Given that we may default into a dual regime depending on the outcome of TAR NC (see main letter), our view is that the technical and economic challenges of a dual regime should be considered carefully (see the implementation section).

Prices transparency

Long-term capacity can be bought up to 17 years in advance, but under the floating charge proposals the capacity charge would only be finalised in the year of use. Ten respondents argued this would be a retrospective change to existing contracts, breaching the conditions

[18] In 2013, we carried out a review of the price responsiveness of gas interconnectors in cooperation with the Dutch and Belgian energy regulators. https://www.ofgem.gov.uk/ofgem-publications/75776/interconnector-flows-further-analysis-next-steps-final.pdf. We found evidence that a high commodity charge introduced a bias against landing gas in GB. We identified a material number of occasions when, despite the wholesale gas price being higher at the GB hub than at the Belgian hub, Interconnector UK exported gas from GB to Belgium.

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agreed by both parties and contrary to the user commitment principle. They felt the changes represent regulatory uncertainty, exceeding reasonable expectations, and disproportionately affect existing contracts.

Eight respondents considered that the proposal means the final entry price is unknown, increasing cost uncertainty, making some future contracts uneconomic and discouraging future investment. 12 respondents thought the proposal would increase price variability and volatility. They consider that surplus capacity would reduce auction price transparency and hamper efficient price discovery. Only one respondent thought that total entry charges would become more predictable after an initial 'acclimatisation' period, because the floating element can be determined earlier (as it is based on bookings rather than current commodity charge based on actual flows).

Our view

We do not think floating capacity charges would introduce more price uncertainty than exists under the current arrangements where the significant commodity charge component is unknown until year of use. Indeed, under the current regime the final costs for entering gas onto the network differ very significantly from those known at the time of the capacity auctions. Furthermore, as long term capacity bookings have been declining steadily since auctions were introduced 10 years ago, this being largely the consequence of a less congested network and changing gas supply and demand, the effectiveness of price discovery in the existing auctions is questionable. We agree with the view of respondents who stated that total entry charges may be more predictable because the floating element is based on bookings rather than flows. We did not receive any evidence in response to the consultation of how the perceived uncertainty over the final charges would discourage investment.

Treatment of storage capacity

In our policy position publications, we proposed that storage users would not pay the floating element of capacity charges. Nine respondents agreed with this approach, even if they disagreed in general with floating capacity charges, as it preserves the existing arrangements for storage.[19] Only one respondent disagreed, arguing it amounted to preferential treatment for storage facilities that would distort competition. The remainder of respondents didn't comment on the preservation of exiting arrangements for storage.

Our view

Our modelling shows that storage charges increase dramatically when the floating adjustment is included. Therefore, our proposal is storage users would not be charged the floating element, preserving the existing arrangements whereby they don't pay the commodity charge.

The model

We developed a model to investigate the quantitative impacts of introducing floating capacity charges. The model identified a redistribution of charges amongst users, with those currently flowing close to their capacity bookings likely to see their total system entry costs fall.[20] Seven respondents did not comment on the modelling at all. The remainder of respondents levied a variety of criticisms against the model (outlined below), but did not consider that remodelling was justifiable. Of these respondents, ten explicitly commended the attempt to quantitatively examine the impacts.

Five respondents disputed elements of the model's construction: the use of NGGT's Gone Green Future Energy Scenarios for supply and demand, the financial viability of existing

[19] Gas storage users don't pay the commodity charge. Storage gas circles around the system. It enters the NTS and exits to reach the storage facility; and then enters and exits the system again to meet demand. This means that gas going into storage has already paid an entry commodity charge, and will pay an exit commodity charge when it ultimately exits the system to meet demand. Storage gas has therefore made its contribution to historical cost recovery.

[20] This is to be expected, as the total allowed revenue is collected, based on all bookings, not flows, thus increasing the size of the charging base and spreading the costs across all users.

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infrastructure, the focus on unbundled capacity products, and the omission of physical constraints and new sources of supply. One respondent specifically disputed the accuracy of data on existing bookings used by the model. 13 respondents felt that the results were of limited use because the model was based on inaccurate assumptions, principally that shippers would continue to book the same volume of capacity under the proposals. One respondent considered that model did not identify the impacts on price volatility or the costs of flexibility.

Ten respondents thought that Ofgem was over-reliant on the modelling results for justifying the policy position when it only shows the relative impacts of different scenarios.

Our view

We present the results of extensive modelling in our policy position publications, and explain the model assumptions and inputs. We invited feedback during the model development from the GTCR technical group (composed of industry stakeholders), and have made the model available on request. We presented the initial modelling results at an open industry event in October 2014,[21] and the GTCR technical group considered them reasonable. We agree that the model has a limited scope and the results are only indicative. However, we don't think further modelling[22] would provide results that are more robust.

Impact on users' behaviour

Nine respondents considered that floating capacity charges would discourage future long-term capacity bookings as users optimise their bookings to reduce exposure to the floating element. Five respondents felt that the proposal would not halt the flight from long term to short-term capacity, and the remainder were neutral. Three respondents thought the proposal would reduce overbooking but another three disagreed, believing that overbooking would continue by users who value the security of long term capacity. Five respondents argued that users overbook to reduce the risk of capacity substitution and the reduction of baselines. They say the proposal would reduce users' ability to react to short-term changes in demand, with consequences for security of supply.

Our view

In our policy position publications, we show that under the current regime users increasingly over-book capacity compared to their anticipated flows and that long-term capacity bookings have been declining. We expect that the floating capacity charge proposals would encourage bookings that are closer to anticipated flows. We do not consider that this would, beyond a redistribution of charges, have any structural or strategic implications for the network (including for security of supply).

Impact on users' financial liabilities

In our policy positon publications, we consider that floating capacity charges recover revenue over a larger charging base, and where users have optimised their bookings to anticipated flows, this would result in lower total entry costs. Seven respondents explicitly disagreed, arguing that the reduction in long-term bookings would reduce the charging base and result in higher average charges. Two respondents agreed that it might result in lower transaction changes for cross-border trade. The remaining respondents did not comment on this explicitly.

Under the current charging regime if a user doesn't flow against their capacity bookings, they don't pay the flow based commodity charge. The proposed floating capacity charges mean that users would be committed to all charges when they buy capacity, irrespective of eventual flows. Ten respondents argued that the proposal would increase the costs of 'optionality' provided by the current regime, negatively impacting future users with variable flows who cannot optimise their bookings or who need to buy long term capacity (to secure producer contracts, third party investment in related projects eg LNG terminals, or to

[21] https://www.ofgem.gov.uk/publications-and-updates/gas-transmission-charging-review-stakeholder-update

[22] Such as more complex dynamic modelling to attempt to capture possible changes in shippers' capacity booking or flow patterns as a result of changes in system entry charges.

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release incremental capacity).[23] Therefore, they considered that floating capacity charges would expose these users to higher costs.

12 respondents argued that the proposal would negatively affect users with continuing contracts taken out under the current regime. They felt that the application of floating capacity charges to these contracts amounts to retrospective changes, and that the loss of 'optionality' would not even allow these existing users to respond by reducing their exposure to the floating capacity charge.

Our view

In our policy position publications, we recognise that the financial impact of floating capacity charges would differ for individual users, but that total entry costs would reduce for users whose current bookings are close to anticipated flows. Users can still accommodate variable flows under a floating regime with the variety of different capacity products available (ie via short-term products). The 'optionality' that respondents value in the current regime was an inadvertent product of the commodity charge, not an intended characteristic of the charging regime by design.

Our view is that floating capacity charges should apply to all contracts from the date of implementation, including those taken out under the current regime. We consider this would avoid market distortions between users buying the same entry point capacity for the same period but paying different charges depending upon the date they entered into the their obligation to pay. NGGT's data shows that existing long-term capacity contracts begin to expire around 2022-23, therefore the impact on users with existing bookings would be transitory. However, as noted in the main letter, we acknowledge that there is uncertainty regarding treatment of existing contracts at IPs under TAR NC ('grandfathering').[11] We invite NGGT and industry to take into account the practical aspects of moving to a regime with floating capacity charges at all entry points (domestic and IPs), and to consider transitional arrangements (in particular the impact on charges payable by existing capacity holders).

NGGT have confirmed that there are currently no outstanding contracts to secure incremental entry capacity beyond 2018 (not considering capacity at storage ASEPs).[24] We expect NGGT and the industry to determine how the financial commitment required for securing incremental capacity would work in a floating capacity charges regime.

Competition impacts

The majority of respondents felt that the proposal would not significantly affect competition, with only one considering it would improve competition and five arguing it would deter competition. 13 pointed out there would be distributional impacts that would disproportionality affect some users, particularly those with variable flows (such as LNG), or who continue to book long-term capacity to secure incremental capacity or third party investment. Only one respondent felt that the proposal would improve the cost reflectivity of entry charges whilst another four disagreed, with the remainder neutral.

Our view

We consider that our proposal is likely to further competition because floating capacity charges would improve the cost-reflectivity of entry charges (specifically, better reflecting historical network investment costs at entry points). In particular, it would ensure that all users who benefit from the availability of a reliable network contribute efficiently to the recovery of historic investment costs. Our analysis suggests that while the distributional effects are not uniform, they are not acutely detrimental nor distinctly beneficial to any particular type of future user. We do not think the distributional impacts would have an

[23] The level of financial commitment is calculated using the test described in the Entry Capacity Release Methodology Statement (ECR). The test is passed where the Net Present Value of capacity charges for any bids made during an 8 year period exceed 50% of the investment cost to deliver the additional capacity.
[24] NGGT received a PARCA application in August 2015 for entry capacity in the range of 60,000,000 – 180,000,000kWh/d with a registration date of April 2019. At the time of writing NGGT had still to confirm and publish the PARCA phase one notice setting out how this capacity signal would be delivered.

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adverse impact on competition between network users, nor on consumers, (transportation charges only constitute 3% of the average consumer bill).

Market dynamics
In our policy position publications, we consider that the proposal would improve cost reflectivity of entry transaction costs with positive impacts on market dynamics. Eight respondents felt the proposals would have negative market impact, reducing responsiveness to signals (including LNG imports), affecting arbitrage opportunities and hub liquidity. 13 argue that the proposal would detrimentally affect the economics of marginal fields, and reduce the attractiveness of the GB market affecting cross-border trade and security of supply.

Our view
Our modelling results suggest that, under the floating regime, total entry costs would reduce for users whose current bookings are close to anticipated flows. Lower transaction costs to enter the GB market should reduce the potential disincentive to import gas, increasing arbitrage opportunities and encouraging cross-border trade, supporting security of supply. It is not clear to us why total entry charge volatility would increase under floating capacity charges. This would depend on the ability of NGG to forecast bookings, and whether there are reasons why forecasting bookings is more complex/prone to volatility than forecasting flows for the purposes of calculating the commodity charge.

Efficiency of network use and operation
In our policy position publications, we said that floating capacity charges would reduce the incentive to overbook capacity compared to flows and therefore provide NGGT with more accurate and timely information on planned network utilisation. We consider that this would help NGGT operate, manage and maintain the network efficiently (eg compressor use).

Only one respondent agreed, but with the caveat that benefits for network operation would only materialise if users are encouraged to book more long term capacity. They suggested that the proposal would be enhanced if there were a locational element to the floating element of the capacity charge (the current proposal is for a uniform floating adjustment).

Conversely, seven respondents thought that floating capacity charges would not improve the efficiency of network operation. Five of these argued that the floating element would overshadow any locational signal, therefore obscuring any investment signals for NGGT. They also stated that floating capacity charges would not reverse the reduction in long-term capacity bookings, therefore not providing NGGT with any more timely information on network usage. One added that if NGGT wanted better information for management purposes, it would be more appropriate to create an information request.

Our view
We maintain our view that floating capacity charges would enable NGGT to make more efficient network operation and investment decisions. This is because it would discourage overbooking, providing more accurate data on future network utilisation. Optimised bookings would also provide NGGT with earlier signals on the likely network utilisation.

Reducing discounts for short-term capacity

Short-term entry capacity is heavily discounted. Network users have been switching to these cheaper products rather than buying long-term entry capacity, as the risk of capacity scarcity is very low. We are concerned that the current level of short-term discounts means that a large proportion of users may avoid contributing to the recovery of some network costs. If users continue to favour short-term capacity, NGGT may need to provide locational signals to these users (which do not exist when there are significant discounts). With high levels of spare capacity on the network, the tension between setting charges to encourage short-term efficient use of the NTS and ensuring efficient revenue recovery has become

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more acute.[25] Therefore, we are proposing to reduce the 100% discount for within-day short-term capacity. We consider that reducing short-term discounts would improve the cost-reflectivity of entry charges and contribute more to the NGGT's allowed revenue.

Suitability of short term discounts

There was a wide range of opinions on the proposal to reduce short-term capacity discounts. Ten respondents supported the proposal to reduce discounts, some on the basis that it would reduce the floating element. Six of these qualified their response stating that we should retain the Short Run Marginal Cost (SRMC) principle. The other four respondents thought the proposal should go further; that only a premium for short-term capacity would reduce the flight to short-term capacity and address the under-recovery of NGGT's allowed revenue.

Four respondents disagreed with any change the current levels of short-term capacity discount. Two respondents considered that storage users should be exempted from any change in short-term capacity discounts to preserve the existing arrangements. Four respondents pointed out that short term discounts might not be consistent with TAR NC.

Our view

We stated in our policy position publications that the SRMC principle should continue to be recognised (ie short-term discounts may still be justified), but that we also need to consider the objectives of efficient, fair, and non-discriminatory cost recovery. We modelled a range of reduced short-term capacity discounts, finding that any reduction in the current discount would ensure short-term capacity contributes more to the recovery of NGGT's allowed revenue. Although reducing the discount would increase the price of short-term capacity, it would not reduce its availability and the flexibility it affords.

Impact on users' behaviour

Seven respondents felt that reducing the discounts for short-term capacity would not affect the level of bookings, as users value the flexibility. Four went further to say only a premium would halt the flight to short-term capacity and address the current under-recovery of NGGT's allowed revenues and increasing commodity charge. However, six respondents disagreed stating that we should retain the Short Run Marginal Cost principle. Only three respondents consider that a reduction in short-term discounts would reduce the over-booking of short-term capacity.

Our view

Our modelling results showed that users would continue to prefer short-term capacity to long-term capacity up until the point where it faced a premium (in other words, the trend for greater short term bookings would persist until that point). Given this, a reduction in short-term discounts will reduce the allowed revenue shortfall and hence mitigate some of the concerns expressed by respondents regarding floating long-term prices, while not affecting flexible use of the network.

Impact on users' financial liabilities

A majority of respondents did not comment specifically on the impact on their individual shippers' costs. Two respondents pointed out that cost is not the sole motivation for users valuing short-term capacity products. Four respondents argued it would increase the cost of managing risks, which would ultimately be passed on to consumers.

Our view

Under the current regime, the financial risk to users who over-book capacity compared to their eventual flows is low, especially for zero-priced within-day capacity. However, this

[25] The rationale for the existing structure of short-term capacity discounts is the economic principle of the efficiency of marginal cost pricing, in this instance the Short Run Marginal Cost. However, we also know that a natural monopoly such as NGGT, cannot recover its full costs by setting prices at the marginal cost. Maintaining current levels of discounts against the background of excess capacity on the network and the subsequent shift in the majority of users' buying strategies from long-term to short-term capacity booking does not appear sustainable or efficient.

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means users who don't flow gas avoid the commodity charge, and therefore contribute less to the recovery of historical network costs than those who do flow gas. Reducing the short-term discounts would increase the costs for short-term capacity, and the impact on individual users would vary according to their booking strategies.

Market dynamics
Seven respondents pointed out that short term discounts have positive market impacts, encouraging liquidity, highlighting arbitrage opportunities, and ensuring security of supply. Four respondents were concerned that increased costs for short-term capacity would reduce responsiveness to market signals, the incentives for arbitrage and therefore liquidity, with a detrimental impact on security of supply. However, most respondents do not think there would be any significant effect on security of supply, cross-border trade or consumer bills.

Our view
We consider that reducing short-term discounts such that short-term buyers also contribute to the recovery of historical costs would ultimately encourage market participants to make more efficient commercial decisions. We think that the combination of floating capacity charges and less generous short term discounts would, by reducing variable costs for those who do choose to flow, lead to lower transaction costs for cross border trade, reducing price differentials and improving liquidity and arbitrage opportunities at the GB, Belgian and Dutch gas hubs. This would contribute to our security of supply and cross-border flows. Interconnector and storage arbitrage trades are small compared to the total volume of gas traded at the NBP. Therefore, we think it unlikely that our proposals would materially affect NBP liquidity.

Efficiency of network use and operation
In our policy position publications, we said that reducing the short-term capacity discounts would introduce locational signals, providing NGGT with better information for network operation decisions. Six respondents disagree, as short-term capacity bookings would not provide better information on network utilisation as they only provide short-term signals and do not reflect intraday variability. Three respondents stated that short-term capacity users couldn't respond to location signals when taking advantage of arbitrage opportunities. Two respondents said that the proposal would indirectly help network operation if it reduces the flight from long to short-term capacity. Another respondent said that we should monitor the impact for several years to see if it does provide better signals for network operation.

Our view
We maintain our view that less generous short-term discounts, in combination with floating capacity charges, would help promote efficiency in planning, operating and maintaining the network. Non-zero priced short-term capacity would introduce locational signals, encouraging booking behaviour in line with optimal network use (enabling market participants to make efficient commercial decisions about where to bring gas onto the system, eg closer to demand centres). Locational signals would also help NGGT manage the network in the face of increasingly variable flows from a diversity of supply sources. Furthermore, as short-term capacity is likely to remain the product of choice, (given the decline in overall network usage), encouraging short-term bookings closer to anticipated flows, would help NGG from a network planning perspective. We agree that we should monitor the impact of eventual changes in transmission charging structures.

Implementation of both proposals

We stated in the policy position publications that the timing of the implementation of both our policy proposals should be consistent with the TAR NC timeline.

Timing
Most respondents were concerned about the timing of our proposals, introducing changes that might prove to be inconsistent with TAR NC. Nine respondents thought that we should delay our conclusions of the GTCR project until the detail of TAR NC is finalised. Only one

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respondent considered that the proposals have helped the GB regime prepare for TAR NC and would ensure compliance. Three respondents commented on the compounded impact of the proposals in the context of changes required by the EU Third Package, which have been challenging to implement (eg Gas Day).[26]

Our view
As stated in the main letter, we remain of the view that we should align the introduction of any changes with the implementation of TAR NC, to avoid inconsistencies with the code. Any changes to the current regime would be fully compliant with TAR NC requirements.

Floating capacity charges
In our policy position publications, we proposed to apply floating capacity charges to existing contracts (with the exception of storage capacity). Seven respondents, including some who didn't object to the principle of floating capacity charges, stated that if this was implemented, users with existing contracts should be allowed to return capacity to avoid breaching contracts and discrimination. Two respondents cited capacity return precedents elsewhere in Europe, and the grandfathering clause in the draft TAR NC. Only two respondents didn't challenge the application to existing users, but requested time and guidance on how to adapt. One respondent questioned who would be liable for the floating charge if the capacity were subsequently sold on the secondary market. Another respondent stipulated that we should not exempt storage capacity sold on the secondary market for non-storage use, from the floating capacity charges.

Six respondents were concerned about how we would preserve the existing arrangements (fixed capacity charges) for storage users in practice under the floating capacity charge proposals. In particular how it would work at shared ASEPs with both storage and non-storage connections, ie Easington. Another two respondents suggested how this could be achieved using NGGT data and agreements to distinguish storage from non-storage capacity at shared ASEPs. Three respondents wanted the proposal to explicitly maintain existing arrangement for three categories of storage facilities: current, planned and abandoned.

Our view
Whilst we continue to believe that floating capacity charges are better aligned with economic regulation principles, due to the ongoing uncertainty about the final form of the TAR NC (including the proposal for grandfathering of existing contracts), and taking account of consultation responses, we don't think our proposal should be implemented immediately. Instead, we invite NGGT and industry to prepare for the implementation of TAR NC by further exploring two scenarios: how to implement a floating regime at all points, and whether a dual regime would be feasible, as set out in the main letter.

Short-term discounts
We propose that NGGT and the industry determine the level of discount (with due regard to the final outcome of TAR NC), by raising proposed modifications to the UNC. One respondent felt that the industry opinion is too divided and requested that Ofgem consult on specific proposals. They also questioned whether the discount would be applied before or after the floating element. Six respondents consider we should reassess the need for floating capacity charges after the reduction in short-term discounts have been implemented.

Our view
We recommend that short-term capacity discounts are reduced and invite the industry and NGGT to work out the exact level of discount and how it is applied by raising proposed modifications to the UNC. A workgroup should commence as soon as reasonably practicable

[26] The Gas Day refers to the daily period over which gas transmission system operator works. – currently 6am UTC. From 1 October 2015, the Gas Day was redefined from 06:00 UTC (Coordinated Universal Time) to 05:00 UTC at both domestic and IP points, as the result of two European Network Codes (CAM and BAL). However, some terminals have opted to remain at 06:00, and therefore shippers would have to manage the increase allocation risk for the time lag.

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but we would not expect to make a decision on any UNC modification proposals until after the text of TAR NC is finalised.

Beyond GTCR

Consequential Impacts

Several respondents considered that the proposals would have negative impacts on other aspects of the charging regime outside of scope. Six respondents were concerned about the impact on the shorthaul tariff.[27] One respondent was concerned that the proposal might incentivise more users to incur overrun charges instead of the floating capacity charges.[28]

Our view

As set out in our policy proposals, the focus of the review has been the transmission TO entry charging arrangement. The impacts of the proposals on other aspects of the charging regime are not within scope, including the optional commodity charge (shorthaul tariff).[29] However, this does not preclude separate future reviews and changes – charging is an evolving policy area. We anticipate that the shorthaul tariff would be considered in the TAR NC implementation phase, as set out in the main body of this letter.

Expanding the scope of the GTCR

Several respondents suggested that we needed to review further aspects of the charging regime to address the weaknesses in the current regime. Two respondents considered that NGGT's Allowed Revenue should be reviewed and three felt that the SO/TO split needs to be reviewed. One respondent thought that long-term capacity reserve prices should be increased, while four argued that the principle of locational pricing might need to be reconsidered in a network where asset values have depreciated. Four respondents thought that the current entry/exit split of allowed revenue needs to be reviewed, and one felt that the weaknesses identified in the entry regime are becoming apparent in the exit regime, therefore entry regime cannot be reviewed in isolation. One respondent felt that only a Significant Code Review (SCR) with a wider scope would deliver the most appropriate and enduring solution to address the weaknesses in the current regime.

Our view

The scope of the GTCR was determined through industry consultation at the outset of the review and focused on making changes within the boundaries of the draft TAR NC. It was agreed that the scope of the review would focus on entry charging, retaining the exit entry split to ensure the problem of under-recovery doesn't shift to exit users. We do not think the scope of our proposed changes is wide enough to merit the additional cost, in industry engagement, of an SCR.

We said in our Call for Evidence in June 2013 that we cannot revisit the RIIO-T1 price control, including the TO/SO split and entry/exit split. NGGT's allowed revenues are set under the RIIO-T1 price control framework for a period of eight years. The structure of charges (or a change to that structure) does not have a direct impact on the costs which a network company needs to recover and which we have assessed in agreeing the price control.

[27] The shorthaul tariff is an alternative to the commodity charge for flows over short distances, to encourage shippers to use the NTS rather than building their own pipework.
[28] Overrun charges apply when shipper flows gas without holding capacity rights (ie where flows exceed their capacity bookings). The charge is calculated based on the price of capacity bids using the formula in the UNC.
[29] NGGT separately consulted on proposed changes to the shorthaul tariff in August 2015 http://www2.nationalgrid.com/UK/Industry-information/System-charges/Gas-transmission/Charging-methodology/Gas-Charging-Discussion-papers/

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