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for energy consumers

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: our policy position on future entry charging arrangements

The Gas Transmission Charging Review (GTCR) is our open review of transmission entry charging arrangements in Great Britain (GB). The aim of the GTCR is to ensure that we have in place arrangements which facilitate the provision of a safe, secure, high quality transmission network service at value for money to existing and future consumers.

We said we would share our emerging policy position on charging by the end of the year. **We are now consulting you on this.** Our position will feed into our discussions at the European level, as well as our considerations of other relevant charging matters, including changes to codes or licences.

Following our review, we have identified areas of weakness in the existing arrangements. We think that, in the interests of current and future consumers, future charging arrangements should be improved by making a number of changes. They are:

- introducing “fully-floating” capacity charges for long-term capacity products;
- changing the charging arrangements for short-term capacity products:
 - all users will pay the full “floating” capacity charge component, to recover the historical network cost;
 - the reserve price discount on short-term capacity products will be less than 100% of the long-term capacity reserve price.

Under our proposals this “floating” element of the charge would not be applied to storage users. We will preserve the existing arrangements, where storage users don’t pay the top-up element (currently commodity charges).

We feel there is value in sharing our position on this important issue as early as we can. We will seek to co-ordinate the implementation of these changes with the wider process of

implementing the EU Network Code on Tariffs ("TAR NC").¹

This letter marks the beginning of the **three-month consultation** on our policy position on future gas transmission charging arrangements. By the end of January 2015, we will publish a more detailed document setting out the background to our review, as well as our initial assessment of the potential impact the changes we propose may have on transportation charges and security of supply, and potential distributional effects. We will set out more specific questions we would like to hear your views on.

We are happy to hear your views in response to this letter, but we will wait until we have responses to the full consultation and assessment of impacts before weighing up our final policy position. The consultation will close on **27 March 2015**.

Background

GTCR was launched in July 2013 with a call for evidence. We thought a review was due because of ongoing significant structural changes to the GB gas market since the system was designed, and because emerging EU legislation to harmonise transmission tariffs (TAR NC) might lead to significant changes to the GB regime in the next few years.

Changes to the GB gas market

The current transmission charging regime has served consumers well by promoting the efficient use of the network and facilitating effective competition. The regime was designed, and worked well, under conditions of growing gas demand and associated high demand for network capacity on the National Transmission System ("NTS").

For a number of years now, the amount of gas flowing on the NTS has been falling, and this trend is set to continue.² There is abundant spare capacity on the network, due to:

- depleting UK Continental Shelf (UKCS) gas reserves – less gas needs to enter the NTS in the North to be transported to the demand centres in the South; and
- imported gas (from Europe via interconnectors, LNG) – this enters GB closer to demand centres (South and South-East), and is transported over shorter distances.

As the risk of network capacity constraints decreased significantly, shippers have become less willing to buy long-term capacity products and have switched to much cheaper short-term alternatives.

Combined, these volume and price effects mean that the NTS owner and operator, National Grid Gas Transmission (NGGT), does not earn enough revenue from selling NTS capacity to cover its costs. To recover its full allowed revenue, NGGT has increasingly been relying on the uniform Transmission Owner (TO) entry commodity charge, which is levied on shippers' flows.

¹ The implementation deadline for TAR NC is currently set as: 1 October 2017, or 18 months from the date of entering into force of the Network Code, whichever is later.

² According to National Grid's UK Future Energy Scenarios 2014 <http://www2.nationalgrid.com/uk/industry-information/future-of-energy/future-energy-scenarios/>

As a result, the commodity charge has increased significantly year on year, from 0.0079 pence/KWh at its introduction in 2005/06 to 0.0364 pence/KWh in 2014/15 (360% increase over the period).³ This prompted some of our initial concerns with the charging regime, and led us to launch the review.

GTCT findings

The design of the transmission charges can have significant implications for NGGT's and shippers' businesses. It can influence competition between different supply sources, and the efficiency of NGGT's investment, as well as cross-border trade and security of supply. All of these have the potential to affect consumer bills.

We are concerned about the long-term stability and flexibility of the GB charging arrangements. In particular, we have identified two areas of weakness: the allocation of historical network costs, and the level of discounts for short-term capacity.

Inefficient allocation of historical network costs

The NTS is a natural monopoly, which means that a high proportion of its costs are fixed. NTS asset lives are long, varying between 40-50 years. This means that the cost of past investments incurred by NGGT to provide these shared assets cannot be attributed to specific users. Similarly, all shippers benefit equally from the existence of a reliable, safe network.

Since 2006, the proportion of allowed revenue NGGT recovered through auction sales of NTS entry capacity has been falling sharply, to just 40% in 2013.

Figure 1: NGGT revenue recovery by source (source: NGGT analysis)

	Formula year							
	2007	2008	2009	2010	2011	2012	2013	2014
% revenue from NTS TO entry CAPACITY sales	93%	80%	51%	58%	55%	45%	40%	TBC
% revenue from NTS TO COMMODITY charges	7%	20%	49%	42%	45%	55%	60%	TBC

This means that the historical network costs are increasingly being socialised through the commodity charge. Shippers' contribution to the recovery of the fixed costs is based on how much gas they flow. When shippers choose to flow less gas, or none at all – even though they have booked NTS capacity – their contribution to network cost recovery will be very low or zero.

We think this can create inefficiencies which may be detrimental to consumers. The existing arrangements result in:

- a. Over-booking of capacity

Where shippers don't face the true cost of network access (that is, their contribution to the historical cost), this can weaken the price signal and lead to over-booking of capacity.

³ Commodity charge is adjusted twice a year, in April and October. The rate above is the average for the year 2014/15. The actual rate effective from April 2014/15 was 0.0297 pence/KWh, and 0.0431 pence/KWh from October 2014/15.

We are concerned about the risk this presents to the efficiency of NGGT's investment, where over-booking may increase the risk of over-investment in the network. In RIIO-T1, NGGT received no baseline funding for investment; therefore, any additional spend will lead to an increase in the cost to consumer.

b. Distortion of cross-border trade

In 2013 we carried out a review of the price responsiveness of gas interconnectors.⁴ The findings reinforced our concerns about the level of the commodity charge. We found evidence that a high commodity charge introduces a bias against landing gas in GB. Instead, shippers chose pay the short haul tariff and export gas to Belgium. That is, we identified a material number of occasions when the price at the GB hub was higher than at the Belgian hub, but Interconnector UK exported gas from GB to Belgium. Distortions in cross-border gas trade can lead to potential adverse implications for GB security of supply, and GB consumers.

Suitability and sustainability of short-term capacity charge discounts

Currently, the reserve capacity charges for the short-term products are heavily discounted, relative to long-term products:

- Day ahead (DADSEC) – 33.3% discount on the reserve price;
- Within day (WDDSEC) – 100% discount on the reserve price (a zero reserve price); and
- Interruptible daily (DISEC) - 100% discount on the reserve price (a zero reserve price).

The rationale for the discounts comes from the economic theory of short-run marginal cost pricing. This suggests that where the NTS infrastructure is already in place, the cost to NGGT of providing network capacity to any one additional shipper on any one day will be insignificant.

We think the trends in shipper behaviour we observe require us to reconsider the degree to which this principle applies in practice. In particular:

- as the risk of network capacity constraints decreased significantly, shippers have been increasingly switching from long-term to short-term capacity bookings;
- this behaviour is likely to persist as long as spare capacity on the NTS remains high. This means that the pattern of flows on the network is likely to become even more uncertain in the future, given the diversity of supply sources (UKCS, interconnector flows, storage, LNG).

We don't think the cost to NGGT of accommodating a **significant** number of short-term users is zero. Short-term users already pay the full rate of the commodity charge, contributing to the recovery of NTS fixed costs. However, we also think that a lack of any locational signals may create inefficiencies in the short-term use of the NTS. Under the current arrangements, shippers buying within-day or interruptible daily capacity face the

⁴ 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>

same uniform charge (commodity only) at all entry points – even though the costs NGGT incurs in providing access may be different.

Therefore, we think that maintaining current levels of discounts against the background of excess capacity on the network and subsequent shift from long-term to short-term capacity booking by a large number of shippers, is not sustainable.

Our proposed changes to the regime

We think the following changes are needed to improve the efficiency and cost reflectivity of the transmission charges:

- introducing “fully-floating” capacity charges for long-term capacity products;
- changing the charging arrangements for short-term capacity products:
 - all users will pay the full “floating” capacity charge component, to contribute to the recovery of the historical network cost;
 - the reserve price discount on short-term capacity products will be less than 100% of the long-term capacity reserve price.

Entry charges amount to around 3% of consumer bills, and our proposed policy changes will not increase that proportion, or decrease it significantly in any given year. Instead, the benefit to consumer is dynamic; potentially avoiding future bill increases by improving the efficiency of NGGT’s network investment, and ensuring that GB security of supply, including cross-border trade, is not hindered by network access charges.

Fully-floating capacity charges

We propose to recover the historical network cost through an adjustment to the capacity charge, based on bookings. This means 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. This will mean that the true cost of the network will be explicitly reflected in the access charge. This adjustment will exclude any genuine variable cost – NGGT will continue to recover this through a small flow-based charge.

Under our proposal this floating adjustment would not be charged to storage users. We will preserve the existing arrangements, where storage users don’t pay the top-up element (currently commodity charges).

One immediate objection to fully-floating capacity charges may be that it undermines the capacity allocation auction, and the fixed price principle, as the price paid is different to the auction cleared price. However:

- today, the price a user ultimately pays for transporting gas is not fixed. It is increased significantly by the addition of the variable commodity charge at the time of use – which is not known at the time of auction;
- the effectiveness of price discovery in the existing auctions is questionable, given the presence of significant surplus capacity.

We think the move to fully-floating charges will help address the inefficiencies in current arrangements:

a. Reduce over-booking of capacity

The change will help ensure the shippers face the true cost of network access – that is, the fixed costs NGGT has incurred in making available a reliable, safe network. This should strengthen the price signal and correct the incentive for shippers to over-book the capacity. This, in turn, should reduce the risk of inefficient investment by NGGT, thus helping avoid potential increases in consumer bills.

b. Better facilitate cross-border trade

Under the fully-floating capacity charging arrangements, the remaining commodity charge will be set to recover only the actual flow-based costs. This means that the flow-related transaction costs of cross border trade will become more cost-reflective. We think that reducing the flow-based element of the shipper costs to enter gas into GB, relative to neighbouring gas markets we are physically connected to, will have a beneficial impact on cross-border trade incentives.

Changes to the charging arrangements for short-term capacity products

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 more acute.

Floating adjustment to contribute to historical cost recovery

Short-term users already contribute to the historical cost recovery through the commodity charge on flows. In line with the principle of fully-floating capacity tariffs, we propose that the full floating adjustment is levelled on short-term bookings.

As discussed above, this change will ensure that all shippers face the true cost of network access, which should reduce the incentive to over-book capacity, and reduce the risk of inefficient investment by NGGT.

Reduce the reserve price discount on short-term capacity

We propose to reduce the discounts for the within-day and interruptible capacity products below the current 100% level. We expect the exact level of discounts (including for day-ahead capacity) to be worked out by the industry consultation process.⁵

We are not convinced that the cost the short-term users impose on the network is equivalent to the long-run marginal cost of long-term bookings. We would like the industry to consider the new level of discounts in light of the principle of short-run marginal cost pricing, and reflect as much as possible the actual costs faced by NGGT.

We think a degree of locational pricing element for short-term bookings will improve the ability of NGGT to signal the most cost-effective use of the system. This should help avoid unnecessary additional investment, and ensure that the network service is provided at value for money to existing and future consumers.

⁵ In our impact modelling for the upcoming consultation, we considered the discount levels of 90%, as well as 30%/no discount/120% premium for completeness.

Next steps

This letter marks the beginning of the three-month consultation on our policy position on future gas transmission charging arrangements. By the end of January 2015, we will publish a more detailed document setting out the background to our review, as well as our initial assessment of the potential impact the changes we propose may have on transportation charges and security of supply, and potential distributional effects. We will set out more specific questions we would like to hear your views on. The consultation will close on 27 March 2015.

Our assessment of the potential quantitative impacts will be based on the model developed by consultants⁶ this summer, with input from the industry (GTCR technical working group). The model and the accompanying user guide are available on request. Please e-mail gas.transmissionresponse@ofgem.gov.uk to obtain a copy. You may also find useful the technical working group's conclusions report (drafted by the Gas Forum), published on our GTCR website.⁷

The January document will also set out our initial views on the potential implementation options, in the context of TAR NC development (see Annex A for more detail). We plan to hold a stakeholder event to discuss the consultation proposals in February. We will send an invitation to interested stakeholders once we have finalised a date for this. You will be able to register an interest in this via our GTCR website.

We are happy to hear your views in response to this letter. Please e-mail us:

Gas.TransmissionResponse@ofgem.gov.uk

We will wait until we have responses to the full consultation and assessment of impact before weighing up our final policy position.

Yours faithfully,

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⁶ Cambridge Economic Policy Associates (CEPA) and TPA solutions

⁷ <https://www.ofgem.gov.uk/publications-and-updates/industry-report-qtr-technical-working-groups>

Annex A: European developments

Our review is taking place alongside the development of the Tariffs Network Code (TAR NC) – European legislation aimed at harmonising gas transmission charging arrangements across Member States. This European Network Code is still being developed, and what it will include is currently debated. The legislation distinguishes between cross-border interconnection points (referred to as “IPs”) and domestic points on the rest of the network.

At the outset, TAR NC was expected to follow the guidelines set by Association for Cooperation of European Regulators (ACER). The published document - Framework Guidelines - requires, among other things, that at IPs any over or under recovery of revenue by the network operator (NGGT) may only be recouped through capacity charges, and that commodity charges should only be used to recover those costs which are associated with physical flows of gas (eg shrinkage costs).⁸

Any over or under recovery of revenue at the IPs is to be recovered through an adjustment to the capacity charges in later years, meaning that the capacity charges are ‘floating’ rather than ‘fixed’ at auction clearing price. In effect, this means that the price for capacity bought in previous years through a long-term auction, will, as a result of these changes, be determined in the year in which that capacity is used.

We will take account of the final content of the TAR NC when considering implementation of any changes we decide on as the outcome of this consultation.

⁸ “*Framework Guidelines on rules regarding harmonised transmission tariff structures for gas*”, FG-2013-G-01, 29 November 2013, ACER