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Application of the OCC charge for SO services

The current OCC methodology allows for the OCC rate to be applied to TO and SO commodity charges. This approach reflects the fact that a pipeline which bypasses the NTS would not incur some of those costs which are allowed for under the TO and SO services.

Post Oct 2019 revenue will be collected by National Grid to compensate for the provision of Transmission and non-Transmission Services. In UK terms, this split of revenues is equivalent to the TO and SO controls, with non-Transmission Services continuing to be recovered via a commodity charge (akin to the SO commodity charge).

The Non-Transmission commodity charges (applied on Entry and Exit flows) will reflect the cost inputs which are currently permitted under the SO price control. These costs are set out in Part C of the Special Conditions of National Grid's Gas Transporter Licence. The Maximum NTS SO Allowed Revenue is translated into the SO commodity charge, once other Associated SO charges have been deducted.

SO Allowed Revenue

For Formula Year 2018/19, National Grid reports a Maximum NTS SO Allowed Revenue of £204.6m.¹ Following the deduction of Associated SO charges of £15.3m, an Allowed Revenue of £189.3m is permitted to be recovered. This value is reduced further by the removal of the contribution made by the sale of incremental capacity sales of £0.4, giving an Allowed Revenue figure of £188.9m. In order to set standard SO commodity charges, National Grid must also remove the contribution made by the St Fergus compression charge and the OCC (shorthaul). The final Maximum Allowed Revenue to be recovered purely from the application of the Standard SO Commodity Charge is £126.2m

In the event that OCC Users were not permitted to apply the OCC rate against SO charges, then the Maximum Allowed Revenue would increase by £48.6m.

¹ See <https://www.nationalgrid.com/uk/gas/charging-and-methodologies/transmission-system-charges> for details

The numbers presented are very high level and it is important, from an OCC perspective, to understand the individual cost components which underpin the revenue allowances. If it can be shown that a pipeline which bypasses the NTS would not incur, nor contribute to any of these cost components, then it is clear that the standard SO commodity charge should not be imposed on those Users which would otherwise avail themselves of a shorthaul service. In short the OCC charge should reasonably reflect the alternative option of building and operating a private pipeline.

Core components of SO Allowed Revenue

The largest contributors to the Maximum Allowed SO Revenue are the Base NTS System Operation Revenue (£94.6m) and SO External Incentive Adjustment (£114.3m).

In terms of the Base Revenue this is made up entirely of the SO Opening Base Revenue Allowance, adjusted for inflation. The SO Opening Base Revenue Allowance (unadjusted) for 2018/19 is £72.7m, which, when adjusted for inflation sets a Base Revenue Allowance of £94.6m. The Base Revenue Allowance allows National Grid to earn a certain amount each year, the breakdown of which is not in the public domain, but can assumed to make provisions for the resources employed to support the SO function e.g. people, systems and property costs etc.

The SO External Incentive Adjustment, the largest contributor to the SO Allowed Revenue, is calculated in accordance with Special Condition 3D of National Grid's Transporter Licence. In summary, it is an aggregation of the shrinkage costs, operating margins costs, net residual balancing costs and contributions made in accordance with the various SO Incentive Schemes.

In September 2017, National Grid produced an [Incentive Performance Summary 2017/18](#) setting out the incentive performance of each of the individual schemes between 2011/12 and 2016/17. All of these schemes contribute to the total of the SO External Incentive Adjustment, with the exception of Constraint Management and Transportation Support Services which are treated separately in the calculation of SO Allowed revenue (combined for Formula Year 2018/19 they constitute £12.3m of allowed revenue).

The results for the schemes contributing to the SO External Incentive Adjustment for 2016/17 are set out below:

	Demand Forecasting (D-1)	Demand Forecasting (D2-D5)	GHG	Residual Balancing	Shrinkage	Maintenance	TOTAL
Performance	£1.51m	£0.95m	-£1m	£1.06m	£2.53m	£0.69m	£5.79m

Gas Operating Margins is also subject to an external incentive, however, its value during the RIIO-T1 period is zero.

An examination of the total SO External Incentive Adjustment shows that the contribution made by the incentive schemes is immaterial (noting that for Formula Year 2016/17 the Adjustment was around £96m). The remainder of the Adjustment is made up of “base costs” relating to the provision of services pertaining to Shrinkage, Operating Margins and Residual Balancing. Based on the Shrinkage Target value presented in the Incentive Performance Summary, the contribution made by shrinkage was around £76m, representing by far the biggest, single contributor to the SO External Incentive Adjustment.

Justification for applying the OCC rate to the SO commodity charge

Based on the analysis carried out above, the derivation of the SO commodity rate is complex. It is a function of a number of inputs, of which two are by far the largest contributors: Base NTS System Operation Revenue and SO External Incentive Adjustment.

Although it can be argued that those Users operating under OCC should make some contribution towards SO costs, it is clearly not the case they should make the same contribution as other Users of the system.

Applying the principle that the costs incurred by shorthaul Users should approximate the costs that they would otherwise incur in the event that the gas was transported over a private pipeline, in order to prevent inefficient bypass, it is reasonable to suggest that the SO costs associated with the following services should not apply:

- Shrinkage costs – these costs relate to own-use gas (compressor operation) and unaccounted for gas. A private pipeline would not need access to the wider NTS and, as such, the costs associated with operating multiple, nationally dispersed compressors etc would not be applicable. Likewise unaccounted for gas would not be relevant for a point to point transportation route between a metered entry point and a large, daily metered exit point.

- Operating Margins – this service is used to maintain system pressures in the case of particular events the use of operating margins, for example a compressor trip or failure of the NTS the pipeline system. We understand that the annual cost of this service is around £11m to £12m per annum. This is not applicable to a point to point pipeline.
- Balancing costs – these costs relate to balancing of the NTS network and again should not be applied to a point to point pipeline
- External Incentives – it is difficult to envisage how the costs associated with these schemes should be applied to a point to point pipeline

Certainly, a case can be made that at least a proportion of the costs linked to the Base NTS System Operation Revenue should be applied to OCC Users, on the basis that a pipeline will require investment in people, IT, processes etc in order to manage and operate flows from entry point to exit point.

Based on figures published by National Grid, the current OCC formula is expected to recover close to £49m in SO revenue over the current Formula Year. Given that total allowed Base NTS System Operation Revenue is approximately £94m, the contribution made by OCC Users exceeds 50% of this amount. On the basis that OCC flows make up around [1/3rd] of total flows on the NTS, it could be argued that the contribution to SO costs made by OCC Users is excessive!

What about the broader benefits an OCC User will obtain from the wider system?

It could be argued that the approach undertaken to assess the costs which would be incurred by the construction and operation of a private pipeline when determining the NTS tariffs which might apply is too limited. Having broader access to the NTS and its related services may provide benefits to the OCC User. For example, it has been suggested that by connecting to the NTS offers the User (in this customer) obtains benefits such as having access to the NBP and increased supply security. These benefits are not disputed, however, it should be recognised that in the event that customer elects not to source gas from its nominated entry point (the shorthaul route) then the SO commodity charge which it will incur will be at the standard rate. On this basis, the User will be making a greater contribution towards SO services (at the same unit costs as other Users), in the event that it elects to use them.

In summary, a User will (and should) only benefit from the OCC rate on the occasion that gas is flowed across the designated route, where gas is sourced from an alternative entry point and is transported via a different route then it should (and will) pay the standard transportation charges.

Conclusions

The premise for the creation of an OCC tariff was, and remains, that flows between two points, which might otherwise have been serviced by the development of a bespoke private pipeline, should be incentivised to use the NTS. Increased flows on the existing network benefits the wider industry by reducing the unit cost of every kwh which is transported through the NTS.

The method adopted by National Grid for determining the OCC tariff is to approximate the cost of owning and operating a private pipeline using standardised construction costs referenced against a range of pipeline diameters. This annuitised capital costs are converted into commodity costs and then subsequently averaged to produce an OCC charge.

Historically, the OCC rate has been applied to both SO and TO commodity charges for all flows which fulfil the qualification criteria.

It is understood that the OCC rate will continue to be applied to the TO commodity rate, at least for an interim period, however, there is debate as to whether the SO commodity (or its replacement Non-Transmission Commodity Charge) should continue to be discounted.

This paper explores the cost drivers which make up the SO Allowed Revenue and the subsequent SO Commodity Charge. The breakdown identifies that the vast majority of costs which contribute to the calculation of Allowed SO Revenue are specific to the NTS and not relevant to a private point to point pipeline². In fact, it could be argued that the SO charges incurred by OCC Users are too high, being beyond the level one might reasonably assume to be pertinent to a private pipeline. If the SO charges exceed the operational costs which would otherwise be incurred by an operator of a private pipeline, there is a danger that a current or prospective OCC User will elect to build a private pipeline, resulting in lower NTS utilisation and higher unit costs for all Users.

The suggestion that the broader SO related benefits which a User might enjoy should be taken into account to produce a “net cost” to the ownership and operation of a private pipeline is not relevant. Firstly, the methodology for determining the opportunity cost of a private pipeline is based purely on a replacement cost basis and secondly, were an offtake attached to the NTS to access the wider NTS services, such as sourcing gas from alternative locations, standard commodity charges would be applied.

² The term “not relevant” in this instance means that the costs would not be incurred by an operator a private pipeline

In this case it would make a contribution to SO costs on the same basis as all other non-OCC Users.

For the reasons set out above, it is our contention that the OCC rate should be applied to TO and SO (or Non Transmission Services) commodity charges.