GAS DISTRIBUTION NETWORK SALE

SYSTEM OPERATION RESPONSIBILITIES AND CONTRACTING FRAMEWORK

Introduction

The Development and Implementation Steering Group (DISG) has been established to provide guidance and monitor progress on the development of proposed changes to the commercial, regulatory and operational framework that would support the potential sale of one or more gas distribution networks (DNs).[1]

Meetings of this group were initiated in mid January. One of the first key issues being considered by the group concerns the allocation of system operation and investment responsibilities as between Transco as National Transmission System (NTS) system operator (SO) and the DNs (both retained and independent).

Related to this, the DISG is also considering the nature of the contractual framework that should apply as between shippers and the owner/operators of the distribution networks. The key issue in this context has been the extent to which individual DNs evolve their own separate network code arrangements independently of other DNs.

The purpose of this paper is to set out a number of options for the allocation of system operation responsibilities and for the development of the contracting framework. Ofgem is seeking the input of DISG, Regulatory Architecture Working Group (RAWG), Commercial Interface Working Group (CIWG) and Agency Working Group (AWG) members on each of the options set out in the paper. The views of the groups on the options should inform the development of a series of 'working assumptions' that would be used as a basis to develop policy in the AWG and CIWG and to inform the development of licence drafting through the RAWG.

The paper sets out the options and possible working assumptions below.

In setting out the various options, Ofgem considers that, as a first step, it is necessary to determine the nature of the operational and planning responsibilities that might apply to each of Transco and the DNs. Once these responsibilities have been allocated, an appropriate contracting framework can be determined to satisfactorily address fragmentation and innovation issues.

Allocation of operational responsibilities

Several possibilities exist for the allocation of operational responsibilities which are outlined below. This list is not intended to be exhaustive as there may be variations on these operational models.

[1] It is noted that the proposed sale of DNs and any arrangements developed in conjunction with the proposed sale are subject to Authority approval.

Option 1

DN owners retain system operation and network planning responsibility

Under this option each independent and retainedDN would have responsibility for managing constraints and operational flows (including the management of diurnal storage) on the gas DN.[2]

In addition, the gas DN owner/operator would be responsible for determining the level of available capacity on the network and for all network planning and investment decisions. As such, each DN owner/operator would have its own set of SO incentives. Further, each DN would have its own 1 in 20 investment and planning obligation.

Under this option, Transco NTS would retain responsibility for managing the balancing of supply and demand on the gas system, ie energy balancing. As such, the present energy balancing arrangements would remain with Transco balancing the gas system through the use of the On-the-day-commodity market.

An Offtake Code would need to be established to determine the operational, commercial arrangements as between the NTS and each DN. Amongst other things, this code would potentially determine how much capacity is allocated by the NTS to the DN and how the DN owner would apply for capacity for planning purposes. Incentive mechanisms may be necessary to ensure that the DN owner seeks to efficiently procure capacity from the NTS.

Possible Implications

A potential advantage of the Option 1 approach is that it ensures that the gas distribution network owner/operator is able to make efficient trade-offs between managing interruption and investment on its individual network.

Related to this, with appropriate reform of the exit capacity arrangements, this approach should ensure that true value of interruption can be established on each distribution network as well as the NTS as constraint management on each network can be clearly distinguished.

An additional advantage is that this model may facilitate the development of innovative system operation services at the DN level potential producing additional benefits from comparative competition. However, the creation of numerous system operation centres may conversely lead to some inefficiencies.

Option 2

Transco GB transmission and distribution network system operator and planner (GBSO)

[2] A variation on this option would be for the DN owner to sub-contract its system operation responsibilities to the NTS SO through an agency agreement. In this case the DNs risks and rewards under its system operation incentives would be driven by the performance of the NTS SO.

Under this option Transco retains responsibility for both system operation, and capacity release (ie system planning) for the transmission network and all the DNs (a 'GBSO'). As such, constraint management (ie interruption) on DNs would be managed by Transco via its own set of GBSO transmission and distribution incentives. Further, Transco would be responsible for determining the level of capacity to be released on the NTS and DN systems through this incentive framework.

The role of the DN owner would be limited to physical investment decisions and pipeline maintenance on the DN. The DN owner would not enter into any interruption contracts.

Under this model, the GBSO would be the entity responsible for making efficient trade offs between entering commercial interruption contracts or releasing more capacity across both the transmission and distribution networks.

Where necessary the GBSO will choose to sell incremental capacity in response to additional demand signals revealed by the market and would contract with the DN owner for the physical provision of this capacity. The DN owner would then invest to provide the capacity. If there are any delays in the provision of the capacity then the GB SO would bear a share of the costs under its SO incentives and be able to recover compensation from the DN owner.

Similarly, the DN owner would contract with the GBSO to enable it to undertake pipeline maintenance on the DN. The GBSO will then have to contract with shippers or customers to manage any interruption. If maintenance overruns then the DN would pay compensation to the GBSO.

Further, the GBSO will be able to compare the costs of entering into interruption contracts for constraint management with the costs of contracting with the DN owner for investment in the DN system.

Under this model there would be no Offtake Code in the sense proposed by Transco as there would only be one system operator.

Possible implications

The advantage of this option is that it sets clear rules for accountability for system planning, operation and investment. In this sense the DN would essentially be passive, undertaking investment and maintenance under contract with the GBSO.

However, careful consideration would need to be given to determining the extent to which the SO bears the costs for a failure to invest under its SO incentives and the extent to which these costs can be recovered from the DN owner.

A potential disadvantage of this option is that it may stifle innovation in the development of system operation services to the extent that there is only one party that is responsible for system operation.

Conversely, this option may have advantages to the extent that there are economies of scale or other efficiencies to be gained by retaining just one system operator.

Option 3

Transco GB transmission and system operator with joint planning responsibilities as between NTS and DNs – based on SSE 'Further thoughts' paper

Under this model Transco NTS and the DN owner would need to coordinate investment across the networks with each having a 1 in 20 planning obligation for investment on their own networks.

The DN owner would therefore undertake physical investment on its networks, utilise Transco NTS diurnal storage as necessary and enter into contracts for interruption on its own network. As such, the DN would be able to choose the most efficient combination of these alternatives.

However, the Transco NTS SO would be responsible for system operation across the transmission and distribution networks including managing interruption on each DN. In managing interruption on the DNs, Transco NTS SO would have access to the interruption contracts that have been struck by the DN owner with customers/shippers. Some form of contractual arrangement would need to be established between the Transco NTS SO and DN owner to enable this to occur. This could potentially be addressed within a Uniform Network Code.

If the NTS SO does not have sufficient tools available to manage operation across the transmission and distribution systems then each network would need to cooperate and coordinate on the level of investment required.

Under this option a direct contractual relationship would exist between DN owners and shippers.

Possible implications

An important issue to consider under this approach is where accountabilities lie for failure to invest and failure to operate the system efficiently when one party is responsible for investment and striking interruption contracts and the other is responsible for system operation and exercising those contracts.

Related to this, the allocation of investment and interruption incentives would need to be resolved. Are these incentives allocated to the NTS or to the individual DNs that are responsible for striking interruption contracts or to both parties?

The incentives issue would need to be resolved as the Transco NTS SO could be calling interruption on DN contracts that it has not paid for. In this context, who should bear the costs of the interruption contract?

If it is the NTS that is bearing these costs then the DN owner would not be making any efficient trade offs between investment and interruption. Alternatively, if it is the DN

that is bearing the costs then the NTS may have little incentive to efficiently call the interruption contracts.

A further issue that arises is how disputes over planning issues as between the NTS and each DN owner would be addressed under this option. For example, Transco may wish to require the DN owner to undertake more investment to reduce its costs of interruption as NTS SO. However, the DN owner may refuse to undertake this investment. Similarly, the DN owner may have agreed to invest up to a certain level but may have failed to do so thereby increasing costs on Transco as SO in terms of the costs of interruption.

It is uncertain whether obligations to coordinate planning would address these issues.

Development of contractual framework

Both Option 1 and Option 3 outlined above assume that the DN owner will have a contractual relationship with customers and shippers. If it is assumed that this is the case, it is then necessary to consider an appropriate contractual framework for the interface between the DNs and its users (ie shippers and customers).

In this section we discuss a number of different options for the contracting framework in the event that either Option 1 or Option 3 is taken forward.

We assume that if the Option 2 GBSO model is adopted there is no contractual interface between customers and shippers and DN owners. As such, the present network code and pricing methodology framework would remain largely intact. Naturally, under a GBSO model there would be no scope for individual DNs to offer system operation services.

In developing the frameworks to achieve Option 1 or Option 3 it is necessary to consider both the nature of the network code arrangements, the role of the agency and the governance of the distribution pricing methodology.

Network Code Arrangements under Option 1 or Option 3

Uniform Network Code arrangements with short form DN codes

Under this model, UNC arrangements would be established for Transco's NTS and each of the DNs (including those retained and those that are independent). The UNC would separately identify Transco NTS and DN contractual obligations.

Under this option, each DN would have its own short form network code from the first day of new ownership. Each individual DN network code would effectively adopt the UNC. However, over time, each DN would be entitled to develop and evolve its own network code arrangements with shippers.

This arrangement has benefits to the extent that it allows individual network owners to innovate in the provision of systems operation services to the shippers and customers that use their respective networks. Such an approach would maximise the benefits of comparative competition between DNs.

However, the arrangements could also potentially increase contractual complexity and transactions costs for shippers to the extent that separate network code arrangements begin to evolve from day one.

In addition, the development of separate network code arrangements could potentially undermine wholesale and retail competition to the extent that complexity and transaction costs increase.

Under this option, some of the concerns relating to increased transaction costs and complexity may be mitigated by the development of the agency concept which acts as the sole interface with shippers for invoicing and billing purposes.

One single UNC

Under this model UNC arrangements would be established. However, there would be no short form network codes. Instead, shippers, DNs and Transco would be party to the one single network code. There would be no short form network codes.

These arrangements would prevent the development of fragmented commercial and contracting arrangements by individual DN businesses. This may have the effect of stifling some innovation. However, DN owners would still be able to raise modifications to the UNC to introduce innovative system operation services. To the extent that any such proposal was accepted it would be implemented by all DN owners.

As such, any benefits associated with comparative competition under this approach would be restricted to the ability of each DN owner to deliver capex and opex efficiencies under a commercial regime that is largely identical across each network.

A benefit of this approach is that by preventing the separate evolution of short form network codes, it may be possible to avoid the potentially detrimental effects of industry fragmentation on wholesale and retail competition.

Under this option it is assumed that the agency be responsible for invoicing, billing and other shipper services.

UNC and short form network codes with restricted governance

A further variation is to create short form network codes but to restrict their separate development, thereby preventing fragmentation. Under this approach any separate evolution in these codes would be minimised or prevented through restrictions set out in the modification rules for the UNC.

Treatment of pricing methodology

Similar issues to those outlined above apply with respect to the governance of the distribution charging methodology of each DN owner under Options 1 and 3 above.

There are two alternatives, either to allow distribution charging methodologies to separately develop or to establish a single national uniform distribution charging methodology.

The former approach would allow for innovation in charging arrangements and may facilitate the provision of new system operation services by independent DN owners. Such an approach would maximise any benefits from comparative competition.

However, the creation of separate charging methodologies would also increase industry fragmentation potentially increasing transactions costs and complexity to the detriment of wholesale and retail competition.

Credit issues

The DISG also discussed the credit arrangements with respect to transmission and distribution charges. Further consideration is needed as to whether it is appropriate to have a centralised agent to collect transmission and distribution charges on behalf of network companies as well as the credit risk management policies that would apply in these circumstances (eg whether it is appropriate for the agent to pool all the transportation credit risk across Transco's NTS and all the DN owners).