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30th June 2005

Dear Nienke,

Re: Gas Transmission – New NTS entry points, reserve prices in auctions and unit cost allowances (UCAs) – Consultation Document, May 2005.

Star Energy welcomes the opportunity to comment on the above mentioned consultation document.

We obviously have a keen interest in the issues raised in this document as the majority of the new entry projects considered relate to potential Star Energy Group gas storage projects.

Star Energy is an onshore oil and gas producer that also operates embedded generation plant and is developing onshore gas storage in partially depleted onshore hydrocarbon reservoirs. Star Energy's first storage project, at Humbly Grove in Hampshire is due to enter commercial operation in Q4 2005.

The UK gas market is undergoing a seismic shift from a period of self-sufficiency with highly flexible, dedicated fields in the North Sea and Irish Sea declining and being replaced by imported gas, not dedicated to the GB market.

While the import infrastructure is being put in place to facilitate the shift to import dependence there is still uncertainty over the flows of gas to meet GB demand.[1] There is also a lack of gas storage facilities to meet the flexibility and demand swings previously supplied by flexible offshore supplies.

[1] see for example NGT's Preliminary Winter Outlook Report - 2005/06.

On the demand side peak gas demand is expected to grow slowly over the next decade, but there are uncertainties, particularly given the unprecedented levels of oil and gas prices.

We therefore recognise that Ofgem have a difficult task in determining long run incremental costs for the proposed new entry points (all of which relate to proposed gas storage facilities).

Nevertheless we have serious concerns with the methodology and analysis performed by Ofgem. We believe it would result in significant reinforcement costs being charged to storage operators and users (and ultimately customers) for reinforcement projects that would only be required to secure demands significantly in excess of the 1-20 peak demand – reinforcements which are therefore by definition uneconomic and would not be built.

As well as impacting the cost side (and therefore the economics) of the proposed storage projects, a theoretical requirement for reinforcement may lead to significant delay in the projects as Transco are not obliged to provide incremental capacity before a three year lead time.

We provide a summary of our response below. We have responded to the Ofgem document chapter by chapter and the notes against our summary points refer the reader to where a more detailed discussion of the issues may be found.

Summary:

- According to Ofgem, Transco receives reinforcement revenue sufficient to provide the TO baseline quantities in Transco's Licence. Therefore in evaluating new entry points reinforcement should only be considered if it would be required over and above capacity required to deliver the baselines that have already been funded. It is highly likely that if this approach were used then no reinforcement would be required for the entry points. (See comments on Chapter 2).
- In the case where Transco have not been provided with revenue for reinforcement to the TO baseline then the Ofgem approach is not appropriate as it sees demand in excess of the 1-20 demand. (See comments on Chapter 3).
- Ofgem suggest a load absorption approach as opposed to a supply substitution approach to network balancing. We advance many arguments to show that in the case of storage projects in particular the supply substitution approach is more appropriate. (See comments on Chapter 3).
- We have fundamental problems in relation to the IECR methodology. We believe that the highest entry charge that a storage project should pay (excepting connecting pipeline costs) should be zero. (see attachment 1).
- We believe that if a supply substitution approach is used then a zero entry charge would result as no reinforcement would be required for these projects. (See comments on Chapter 3).
- We believe that the methodologies used to calculate UCAGs have been inconsistent (See comments on Chapter 4).
- We have commented on pipeline costs in relation to Transco's proposed IECR (see attachment 1).
- We believe that insufficient attention has been given to the time implications of a methodology that suggests that reinforcement is required when it isn't. This could delay projects by three years (See comments on Chapter 4).

- As several of the reinforcement projects are mentioned for more than one entry point this illustrates that under this methodology Transco can earn revenue for projects more than once (See comments on Chapter 4).
- We support Ofgem's intention to reassess all the UCAGs as part of the next price control.
- Given our fundamental problems with the UCAG methodology being applied we see little merit in either of the policy options being suggested by Ofgem (See comments on Chapter 5).
- Rather we would suggest that if Transco are in fact being provided with revenue to make available the baseline capacities in their Licence the UCAGs for the new entry points should be calculated with a starting point of a network that can meet these flows.
- The UCAGs for the proposed entry points should then be recalculated based on a substitution approach as this is more appropriate.
- The auctions for the new entry points should be held as soon as possible after this recalculation has happened.
- We believe that this approach will result in UCAGs of zero for the new entry points as no reinforcement will be required for these projects.
- While we believe storage near to centres of demand should have negative entry charges we recognise that a zero entry charge is a reasonable second best solution in the short term.
- The recognition that reinforcement is not required will also mean that the potential delay due to the lead time afforded to Transco to make available incremental capacity is avoided, thereby aiding the rapid development of these projects. This would help security of supply.
- We strongly support Ofgem's comments in relation to embedded entry points connecting to DNs. (See comments on Chapter 5).
- We are keen to examine non-firm entry rights as an approach that can provide benefits to both project developers and DN operators.
- While we are happy to embark on a bilateral approach we do believe that DN operators should have obligations in relation to transparency and non-discrimination.
- We agree with the principles for setting UCAGs set out by Ofgem in Chapter 7. We further agree that Transco should be responsible for setting UCAGs. However we feel that the process should be much more transparent – both in terms of setting the methodology and in terms of the modelling and calculations.

Please feel free to contact me if you have any questions or would like further information on the issues raised in this response.

Yours sincerely

A Fernando
Business Development Director
Star Energy Group plc

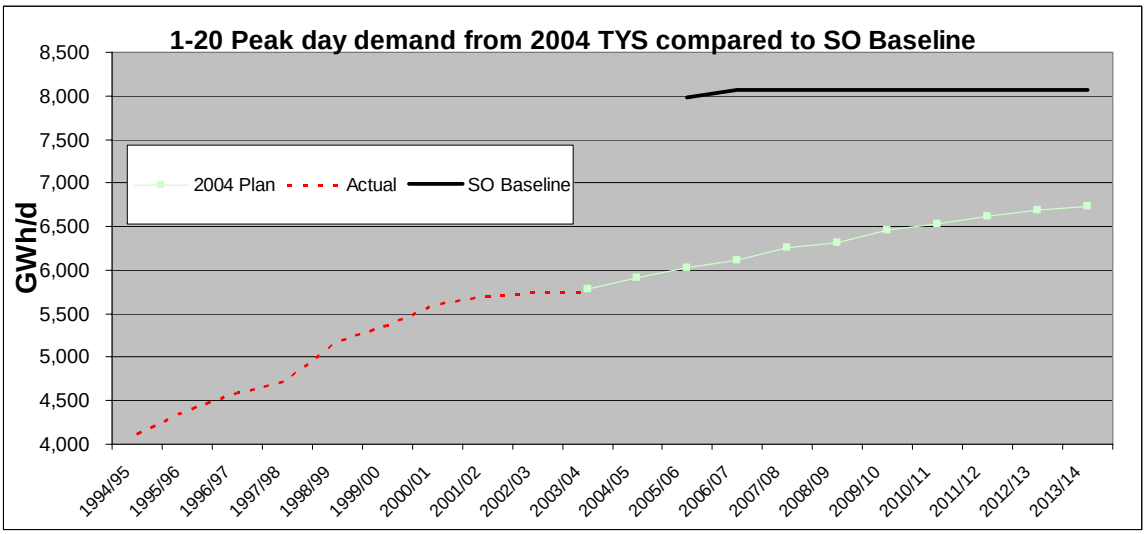
Chapter 2: The NTS Entry Capacity Regime.

The Ofgem consultation document makes some key points about the NTS Entry Capacity Regime:

- The TO baseline was set at the maximum physical capacity available at each entry point, without considering interactions with other entry points (2.7).
- The SO baseline was set at 90% of the TO baseline (2.8).
- 80% of the SO baseline must be offered through long term auctions (LTSEC), with the remaining 20% and the quantity unsold in long term auctions being offered in short term auctions (2.9).
- "As part of the TO price control Transco receives funding to cover a projection of the level of operating and capital expenditure necessary to provide these baseline output levels". (2.11).
- Transco does not have to invest to provide baseline capacity – but if it cannot provide the capacity it is exposed to part of the cost of buying-back entry capacity already sold.(2.15)
- The costs and benefits of buy-back are shared with shippers (2.16)
- "The purpose of the buy-back incentives is to allow Transco to make efficient trade-offs between investment in new entry capacity and buying back capacity from shippers" (2.18).

One of the key conclusions to follow logically from this analysis is that in evaluating the impact of new entry terminals one should not be looking at the NTS as it currently is (including programmed investments), but as it would need to be such that Transco can deliver the baseline capacity that they were given funding for under the price control. If Transco choose not to invest and to expose themselves to buy back risk then that is a decision for Transco. A situation where Transco receives funding for reinforcement on several occasions for the same projects (irrespective of whether they actually occur) obviously needs to be avoided.

The following graph shows the Transco SO baseline (which is obviously below the TO baseline) compared to Transco's projection of 1-20 peak demand as published in the 2004 TYS:



It can be seen that the SO baseline is significantly above the 1-20 peak demand forecast.

Transco have, according to Ofgem, already been provided under their price control with revenue to make existing baseline capacities available (2.11). These baselines are well in excess of actual and projected 1-20 demands. In using a baseline network that is significantly lower than the SO baseline all the incremental flows used to set the LRICs must (by definition) result in flows that are still below the baselines in Transco's licence. It must be remembered that all the new entry points being considered are within the network and are close to major centres of demand. Therefore the entry points are already within the flows that would have been modelled in setting the price control. The graph illustrates the position. The SO baseline is always more than 1,000GWh more than the forecast 1-20 demand.[2] To put this into context the 9mcm/d incremental flow from the storage projects is approximately 100GWh.

Therefore (except for the cost of any pipeline that Transco is being asked to build between the new facilities and the NTS) the marginal cost of entry must be zero. In fact – for the reasons we outline in attachment 1 the entry costs should be negative.

If the SO baseline network is used than clearly network balancing should be achieved through supply substitution.[3] It may be argued that this may expose Transco (and customers) to additional buy back costs. However, in the context of auctions only providing about 50 per cent of GB demand (3.10) and less than 50% of Transco's So baseline this risk must be extremely small (particularly in the period until the next price control).

However, we would argue that to the extent that the buy back risk is increased this needs to be weighed against the benefits of increased gas storage capacity in reduced gas price volatility and increased security of supply.

We strongly believe that given the obligations that Transco already have in terms of baselines even a zero UCA for the proposed entry points would not significantly increase their risks. However, if the various storage projects went ahead they would significantly improve security of supply and should help reduce gas price volatility.[4]

In summary we believe that as Transco is receiving reinforcement revenue sufficient to provide the TO baseline quantities in Transco's Licence, in evaluating new entry points reinforcement should only be considered if it would be required over and above capacity required to deliver the baselines that have already been funded.

[2] This may seem to suggest that in giving Transco money to provide a system that can meet demands significantly in excess of the 1-20 level Ofgem have either provided Transco with money that they can invest in an oversized system (ie inefficiently) or provided for a transfer between customers and Transco shareholders. We believe this is an issue best dealt with in the discussions around the next price control. Except in the context noted above it is not an issue for this consultation.

[3] Comments in relation to substitution versus load absorption are to be found in our comments on Chapter 3.

[4] Moreover they should also reduce Transco costs (in both capital and operating terms) for the reasons outlined in Attachment 1.

Chapter 3: A method for setting LRICs and UCAGs.

We have fundamental problems with Transco's IECR methodology as outlined in our response to Transco's consultation on the methodology. We include a copy of our response in attachment 1.

The approach adopted is to set a base network and then to model incremental flows across this base network in the hope of calculating Long Run Incremental Costs.

Our comments in this chapter do not assume that Transco is receiving reinforcement revenue sufficient to provide the TO baseline quantities in Transco's Licence. Comments in relation to this scenario were made in the comments on Chapter 2.

To a certain extent given the approach being adopted it could be argued that the base network is therefore not very important in this analysis. However in the real world we believe it makes a huge difference whether one is:

1) comparing an incremental flow based on today's network and expected supplies to meet peak (i.e. 1-20) demands, or
2) incremental flows based on an already oversized network (at least theoretically), whereby any reinforcement would almost certainly not be actually carried out as it would be over and above reinforcement required to meet the 1-20 peak demand. In this latter case users of the new entry points (ultimately customers) would be financing a transfer of money to Transco which Transco could not (by definition) invest efficiently in the identified reinforcement.

We believe Ofgem are adopting the second approach. The reasons for this are that Ofgem:

- Have looked at the auction signals provided at entry terminals.
- Have concluded that these do not give any sensible signals with respect to how 1-20 demand is going to be met ("If only long term auction signals are taken into account then it appears that only about 50 per cent of GB demand would be satisfied", (3.10)).
- Have recognised that Transco have obligations to provide baseline entry capacity under their Licence
- They have therefore used a "hybrid" approach that recognises:
    - the weakness of the auction signals,
    - Transco's Licence obligation to provide baseline capacity
    - The fact that this baseline capacity is well in excess of 1-20 demand at most existing entry terminals (3.14)

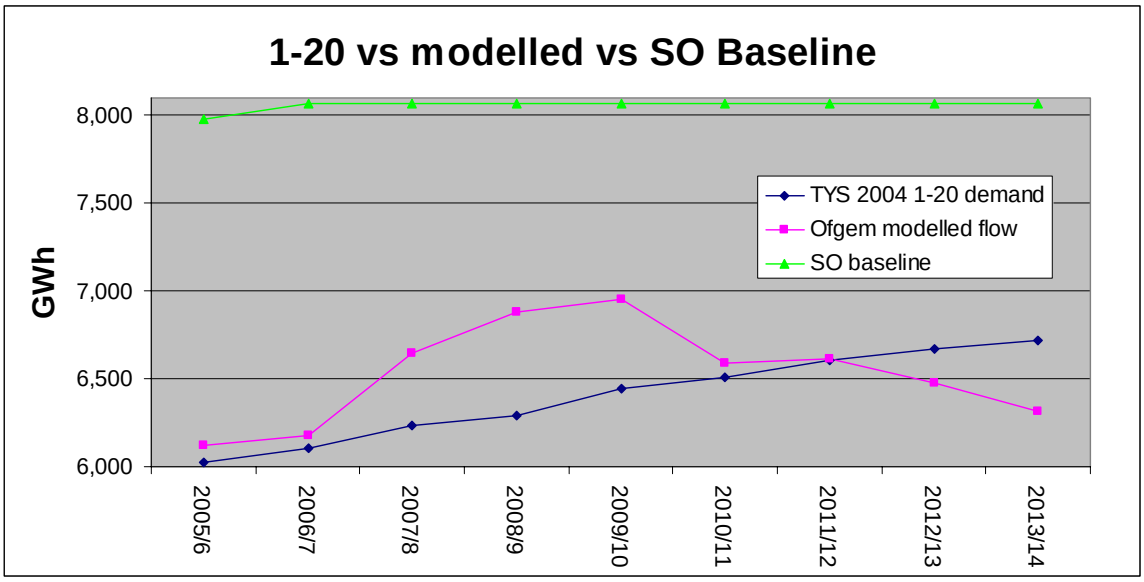
Firstly, we feel this approach may be fundamentally discriminatory. Existing entry terminals are having capacity essentially reserved for them even though this capacity has been available for purchase through long term auctions and has not been purchased.

The alternative approach would be to set up the base network such that the inclusion of the new entry points just met 1-20 demand – this would still result in baselines at the existing terminals that were well in excess of the auction signals but at least it would treat new entry points in a similar way to unbooked capacity at existing terminals,

Secondly, even under the Ofgem approach the base Networks being modelled are significantly higher than the projected 1-20 demand (but significantly below the Transco SO baselines).

Therefore if reinforcement is modelled based on this analysis, then as the reinforcement required is more than is necessary to meet the 1-20 demand it is by definition uneconomic.

The following graph illustrates the relationship between the volumes we believe Ofgem used (as per 3.14) for the base networks compared to the forecast 1-20 peak demand from the 2004 TYS and the SO baseline.



We feel that in this context the explanation of the operation of Transcost (3.19) may be misleading as it suggested that Transcost is set up for 1-20 peak demand whereas the graph shows that more than 1-20 demand is being used.

A final comment is in order in relation to Ofgem's approach to taking auction signals where these are above the baseline (i.e. for the new entry terminals with zero baseline) and the lower of 1-20 forecast and the SO baseline for the other (i.e. existing) terminals.

One of the reasons for this approach is that it recognises that Transco has an obligation to provide capacity up to the baseline. The implications in terms of revenue received from customers and whether this has been invested has already been made and does not need to be repeated. However, a related point is that if Transco do not make capacity available there is a risk of buy back and some of this buy back risk is borne by customers.

The point is to question a methodology that seems to allow Transco to receive money to make capacity available and then when this capacity is not made available to ask customers (who paid for the capacity to be made available) to then bear some of the cost of Transco's failure. It is important to stress that we are not saying that this is what has happened – but we are saying that a methodology that allows this should be questioned – particularly when it has knock on implications whereby flows well in excess of 1-20 demands are then used in order to reduce this buyback exposure.

We believe the correct forum for this debate is the next price control. It is also important to examine the risk of buy back on Transco and others versus the risks and costs of increased price

volatility and reduced security of supply that may result from putting further obstacles in the way of developing new gas storage facilities in the UK.

Load absorption vs substitution vs hybrid approaches.

We welcome Ofgem's discussion in Chapter 3 of the consultation document on alternative approaches to balancing the network in their modelling. Ofgem choose to adopt a load absorption approach which, for the entry points that are the subject of this consultation is equivalent to saying that the new entry flows from these storage projects increase demand in order to keep the network in balance. Clearly storage projects do not increase either annual supply or demand. They increase peak supply as they shift gas from periods of low demand to periods of high demand. They do not, by themselves, increase demand.

Ofgem advance two key arguments for load absorption as compared with the alternative of supply substitution:

1) The alternative of substitution of supply involves choices about which supply is substituted, and is therefore subjective (3.44)
2) "Underlying the substitution of supply approach is the implicit assumption that all future load growth is accommodated within the base network" (3.45).

It is worth examining these two arguments in more detail.

With regard to the choices involved in the location of supply reduction an exactly analogous situation applies to load absorption. As Ofgem make clear, the approach that they have adopted is spread the demand increase in proportion to the existing demand pattern (3.43). This is clearly a highly mechanistic approach that will bear no relation to reality or indeed existing information as to areas of increasing and reducing demand. The equivalent approach in a supply substitution model would be to factor down supply at existing entry points in proportion to the existing flows. Obviously this is equally as mechanistic and arbitrary – but we shouldn't pretend that the load absorption is anything other than mechanistic and arbitrary.

The second argument is more telling. We agree that, "Underlying the substitution of supply approach is the implicit assumption that all future load growth is accommodated within the base network" (3.45). However we would argue that Ofgem have explicitly stated that Transco have received revenue that is sufficient to provide the Licence baselines (and by implication the TO baselines rather than the lower SO baselines being shown here). We have shown that the Transco SO baseline is above:

- The 1-20 forecast
- The 1-20 forecast plus the incremental flow for the new entry points
- The Ofgem modelled networks.
- The Ofgem modelled networks plus the incremental flow for the new entry points

The base network implicit in the Transco TO and SO baselines would certainly be large enough to accommodate future load growth.

The data used by Ofgem also exceed the 1-20 demand levels plus the incremental flows for the next five years (i.e. until after the next price control) with the exception of 2006/7 where the

excess is only 67 GWh (the remaining 33 GWh is equivalent to 0.5% of the 1-20 forecast demand).

Attachment 2 examines Transco's demand forecasts and suggests that a situation of static or reducing demand is quite possible. If this were the case then even in 2006/7 the excess would be greater than 100GWh.

Moreover as we have mentioned at the start of this section storage projects do not create demand.

We would therefore argue that the substitution approach is more appropriate for the new entry points being considered here. We strongly encourage Ofgem to remodel the new entry points based on a substitution approach.

Another advantage of the substitution approach is that it removes the step involved in allocating costs between entry and exit as outlined in paras 3.17 and 3.29 to 3.32. We do not believe this linear programming approach is correct for storage facilities for the reasons outlined in attachment 1. Under the supply substitution approach demand is unchanged and what is being modelled is the impact of different entry flows on a constant demand level. Therefore any incremental costs must relate to entry.

A final recommendation is to use sensitivity analysis to model alternative supply substitutions (i.e. if the base case is the mechanistic approach outlined above then sensitivities could be to model substitution between new entry points and declining terminal or the nearest existing entry point as suggested by Ofgem in 3.44).

We would predict that under all sensible scenarios under supply substitution approaches with the network set up to deliver the Transco licence baselines the modelling would show that the incremental costs of the new entry points is zero as no reinforcement would be triggered. We believe this would also be the case if a 1-20 network were used.

Chapter 4: Estimates of UCAGs.

Given that we believe the maximum entry charge for our storage projects should be zero, it should be no surprise that we strongly object to the calculated UCAGs.

The reasons for our opposition have been set out in our comments on previous chapters. However it is worth making a few points in relation to the estimates of UCAGs.

1) There has been inconsistent methodologies and models used for the various UCAGs, from an unconstrained entry flow model for the TO Baseline (2.7) to the use of a different model (Falcon) for the Milford Haven (4.7).
2) The time in getting to this point has been considerable.
    a. As Ofgem note Star Energy made a formal application to Ofgem for the UCA calculation in early November 2004 (4.13).
    b. The auctions in respect of these new entry points may be delayed until after October 2005.
    c. If the current UCAs are adopted (or any UCAs that imply reinforcement is required), then under the current IECR Transco would typically make capacity available in October 2009.
    d. Therefore capacity would typically be made available some five years after a UCA was requested.
    e. Transco's proposed new IECR would allow Transco (with Ofgem approval) to take more than three years from the October after the auctions are held and investment signals received) – thus potentially pushing out capacity availability even further.

Pipeline Costs.

We have commented on Transco's proposals for new pipeline costs algorithms as part of the proposed revised IECR methodology. Our response can be found in attachment 1.

Reinforcement Projects.

Table 4.4, which shows indicative reinforcement projects associated with the new entry points is particularly interesting.

The first point to note is that several of the reinforcement projects appear in many of the entry point columns. As these UCAs are all being set at the same time my understanding is that the full (annuitised) cost of each project as outlined in the table is used to calculate the UCAG. To the extent the projects overlap (or are indeed the same) if several of the entry points were to go ahead Transco would be paid several times for the same theoretical projects. So for example, comparing an entry at Tatsfield in Surrey to Beckering/Blyborough in the East Midlands, both see identical reinforcements between Peterborough and Caldecott (6.69km x 889mm) and Caldecott to Market Harborough (13.71km x 889mm). The cost of these two projects using Transco's existing pipeline costing algorithm is £12.8million (or £15.25million with Transco's proposed new algorithm).

For the reasons outlined above, we do not believe any of these reinforcement projects would actually be necessary.

The second point is to illustrate the indicative costs of these reinforcement projects (which of course are only for two years out of the 10 year evaluation period):

Project £mm IECR Algortihm	Winkfield (Albury)	Beckering/ Blyborough (Welton)	Tatsfield (Palmers Wood)
Current	£ 31.1	£ 31.1	£ 44.5
Proposed	£ 37.0	£ 37.0	£ 52.8
Increase	19%	19%	18%

These reinforcement costs are extremely large in relation to the capital costs of the projects being considered.

Chapter 5: Comparing UCAGs.

Given that we find the methodology employed in the analysis fundamentally flawed there seems little point in making detailed comments on the proposed UCAGs. However it is worth commenting on the policy options.

The starting point is Ofgem's intention to reassess all the UCAGs as part of the next price control (5.19). It is our understanding that the preparatory work for this price control is now underway.

Ofgem outline two approaches:

1) Reset all UCAGs based on the methods described in chapter 3 of the consultation document (5.21)
2) Cap the new UCAGs at the level of nearby UCAGs at nearby entry points.

We don't think either of the approaches have much merit. We do not think that the methodology is appropriate and therefore would not be in favour of an approach that used it for all entry points. It is also not clear to us that the methodology used to set the existing UCAGs was appropriate, therefore it would seem strange to have a capping approach – which is a bit of a fudge and a short term expedient at best.

We would like to suggest the following approach:

- If Transco were in fact provided with revenue to make available the baseline capacities in their Licence the UCAGs for the new entry points should be calculated with a starting point of a network that can meet these flows.
- The UCAGs for the proposed entry points should then be recalculated based on a substitution approach as this is more appropriate.
- The resulting UCAGs are consulted on will a lot more transparency about the base model and the assumptions.
- The auctions for the new entry points should be held as soon as possible after this recalculation has happened.

We believe that this is the correct approach in the time available. We also believe that this will result in UCAGs of zero as no reinforcement will be required to meet the flows from these projects. While we believe fundamentally that storage near to centres of demand should attract a negative entry charge we recognise that a zero charge is an acceptable second best result. An important element of no reinforcement being required is that Transco will be obliged to make capacity available in less than three years which will certainly help the development of these projects.

The remaining auctions should proceed as planned. It is unfortunate that there is now great uncertainty about the UCAG regime. This is itself may reduce participation in the long-term auctions. Ofgem should make it clear that the methodology and approach to UCAGs will be evaluated as part of the next price control. Participants in the next LTSEC auctions should therefore be made aware by Ofgem that the indicative prices published in this consultation document do not constitute a prediction of the UCAGs that may apply after the price control process.

Chapter 6: Entry Points connected to DNs.

We agree with much of what Ofgem have said in this chapter. We would very much welcome an approach that allows the bilateral negotiation of non-firm entry rights for embedded storage facilities.

The issues to consider in this regard are:

- The “non firm” rights need to be defined in terms of variables that make sense to both the DN operator and the storage operator. So for example the entry right could be set at a firm level that can be accommodated without reinforcement. This could then be supplemented by a non-firm service (over and above the firm service) based on the expected DN demand.
- There is considerable information asymmetry between the DN (as the monopoly operator in this case) and the project developer. We would like to see transparency obligations that help in this regard.
- We support in addition a licence condition (if necessary) that would require a DN owner to treat applications for embedded entry points in a non-discriminatory manner.
- Given that any bilateral agreement will need to incorporate conditions already contained in the generic storage connection agreement we would propose the approved generic SCA is the starting point for the bilateral agreement (this is in spite of our reservation about certain aspects of the generic SCA).

Chapter 7: Further issues for consideration.

We agree with the principles for setting UCAGs set out by Ofgem in 7.4. We further agree that Transco should be responsible for setting UCAGs. However, we feel that the process should be much more transparent – both in terms of setting the methodology and in terms of the modelling and calculations.

We recognise that because UCAGs can be requested at any time for combinations of potential new entry points this has considerable resource implications for both Ofgem and Transco. However, it is hard to see what project developers can do about this where there are no public domain models that allow the modelling of new entry points.[5]

A partial solution to this issue is therefore the release of network models and tools to project developers and other interested parties.

We would support the use of a single model, and much more sensitivity analysis – both for the analysis of the robustness of the answers to the assumptions and to better optimise the entry flow being considered.

We strongly support the release of an updated version of an appropriate model to be made available to interested parties.

[5] The public version of Transcost does not allow the creation and modelling of entry points.