

United Utilities PLC Dawson House Great Sankey Warrington WA5 3LW

Telephone 01925 237000 www.unitedutilities.com

Ms Min Zhu Technical Advisor Office of Gas and Electricity Markets 9 Millbank London SW1 3GE

Direct Line 01925 237096 mike.boxall@uuplc.co.uk

22<sup>nd</sup> April 2003

Dear Min

# DISTRIBUTION PRICE CONTROL REVIEW – BUSINESS PLAN QUESTIONNAIRE RELATING TO DISTRIBUTED GENERATION

Thank you for your letter of 21<sup>st</sup> March, which provides an early insight into your thoughts on data gathering in respect of Distributed Generation. We support your ambition to gather more information to inform the setting of price controls and the development of specific Distributed Generation related incentive mechanisms.

It is helpful to see your objectives set out so clearly at the beginning of your letter. It seems to me that there are two approaches that you could have taken. One is to collect as much information as possible on DG, and to do so as early in the process as possible. An alternative would be to separate the tasks so as to first accumulate as much background knowledge as possible and then, at a later date, test a number of sensitivities around a base case for future investment planning. This second approach would suggest that the DG – BPQ could be split in two. The first part could be completed in advance of the Historic BPQ, while the second could follow the submission of the Forecast BPQ.

We believe that such an approach may be more appropriate, as it would allow more time for the evaluation of potential DG scenarios and would also reinforce the view that DG can not be seen in isolation. The base case investment plans in the Forecast BPQ must include specific assumptions on DG, and any sensitivity analysis makes sense only if there is that base against which to make comparisons. The form of your questioning especially in Tables 3.2 implies that this is your intention.

Consequently we would respond to your proposed objectives as follows :

We support the collection of a consistent set of data on past developments, but would caution against looking too far into the past. Our experience demonstrates that the past may not be a particularly good indicator of future costs, and this is reinforced by the likely changes in circumstances arising from both modifications to connections charge policy, and the likelihood of clustering of future developments.





United Utilities PLC. Registered in England & Wales No. 2366616. Registered office: Dawson House, Great Sanke Warrington WA5 3LW We agree that the determination of cost drivers is essential if DG related costs are to be incorporated in future price controls. This should be easier with a larger data set, but we have reservations over the practicality of this task.

We think the development of future projections should be done in two stages. Some high level views can be gathered early in the process, but a more detailed assessment needs to be seen as a sensitivity analysis against a base case derived from common assumptions underpinning the Forecast BPQ.

In terms of the process you propose for developing the BPQ, we welcome your early engagement with DNOs and are pleased that we have already had the opportunity to discuss some of our initial thoughts. We hope that this dialogue can continue.

We would also note that the draft BPQ concentrates on the effects of specific new connections. As we have already observed, there are other categories of cost that relate more to preparing our network for subsequent new generation connections and modifications to the way it will be operated. Some of these investments will be identifiable in advance of specific connection projects, but other strategic investments may only become apparent as the pattern of future connection developments emerges. These also need to feature in your review of potential future costs.

I will now review the sections of the draft BPQ which were attached to your letter.

#### 1 Historical Information

We support the adoption of the categorisation used in the TSG survey and believe that ensuring the BPQ data set is consistent with the survey will aid understanding, analysis and explanation of the results. In particular we note that your classification in Table R1 seems appropriate for the information on schemes that you are trying to establish. We also note that this classification combines technology and size, rather than using just the banding of DG sizes that was developed for the DGCG. However it might be that R1 is the more useful classification, at least in the short term.

In the period 1 April 2000 to 31 March 2003, the total number of Distributed Generation projects commissioned on the United Utilities network was 27 schemes providing a total generating capacity of 123MW. Between 1 April 1995 and 31 March 2000 there were also 27 projects with a capacity of 80MW commissioned on the United Utilities network. Although the number of projects captured by the three-year window for the UU network is small, we do not recommend that a longer timeframe is considered when requesting historic information. The quality of the data deteriorates for older schemes, and the past is a very imperfect guide to the future in this area. We do not expect useful trends to emerge from historical data. Furthermore you should be aware that we do not generally have detailed historic data for all the columns for Tables 1.2 a and b. In particular our records may not include sufficient detail where assets have been shared between the Distributed Generator and other network users, or where shared assets work has been avoided.

The inclusion of Table 1.3 is a helpful addition to the templates. We are already incurring research and other expenditure, exploring strategic options for developing our network to support a range of possible Distributed Generation penetration scenarios, and will record these and other non-project related costs in this table.

# 2 Interim Period Forecast DG Information

We do not have many projects to enter into tables 2, but as these tables relate to current and future projects we should be able to complete most columns, and generally make a positive return, even if some or many values are zero.

# 3 Future Baseline DG Information

We do not currently have many firm requests for Distributed Generation connection in this period and suspect that this is the case for the majority, if not all, DNOs. However we do have access to a number of key planning documents that could be used as a guide for the generation of a series of illustrative projects in a number of scenarios, as discussed below.

As we discussed when we met on 4<sup>th</sup> April, we would propose to populate the Tables 3 with hypothetical schemes consistent with information derived from regional studies. The main source to hand at present is the Cumbria County Council work on renewables within its area. This should help us to demonstrate the continuing viability of costs and also the likely impact of clustering of projects within 'preferred locations'.

### 4 Future Incremental DG Information

We are comforted that Ofgem recognise the significant uncertainty in the development of Distributed Generation in terms of volume, type, size and location. We agree that it is, therefore, sensible to try to generate some estimates of the costs of developing the capacity to support additional Distributed Generation and connecting additional generators. We accept that even with all the uncertainty DNOs are best placed to construct scenarios for their individual networks, based on an understanding of the specific economic, geographic and demographic drivers for Distributed Generation in the areas they serve.

The development of such scenarios should be co-ordinated by Ofgem through a common set of guidelines that all DNOs can implement. These guidelines should specify the high level assumptions that should be made and set out the number of scenarios that each DNO should develop and the number of indicative projects required in each scenario. The guidelines will enable United Utilities and other companies to consistently estimate the expenditure required to connect sufficient number of hypothetical schemes to provide a useful reference data set and to demonstrate the potential variability of costs. We hope that there will be an opportunity for companies to comment in detail on the scenarios that are proposed.

As described above, United Utilities have already been considering the development of such scenarios using realistic assumptions, such as the Cumbria County Council's regional plan. This plan is based on the geographical drivers for renewable generation sources in Cumbria and gives a useful guide as to the potential for clustering and the resultant cost implications. Although this plan is very helpful for gauging the likely development of renewable power projects it does not give any guidance about the development of Combined Heat and Power (CHP) projects. United Utilities currently believes that the growth of CHP is not linked to that of renewables, and it is therefore possible to split the scenarios and costs of CHP from those for connecting renewables. Therefore, to ensure all DNOs can develop indicative plans on a consistent basis United Utilities recommend that Ofgem use two part sets of scenarios:

one for renewables, and one for CHP. Our current belief is that there should be three scenarios for renewables:

- base assumption where the national 10% renewable target is met by 2010
- a "low" assumption where the 10% target is achieved, predominantly by large offshore generation connected to transmission networks;
- a "high" assumption where the 10% target is overachieved;

and two scenarios for CHP:

- one where the 10GW target is met
- a low scenario where there is little additional CHP.

Because we believe that CHP and renewables are independent, this gives 6 possible combinations of scenarios.

We also recognise there are other dimensions that can have a significant impact on costs and should be made explicit in the assumptions. For example there are pressures to move to a shallower definition of connection costs. Depending upon the extent of this change and where any other costs are to be recovered, the nature of new projects could change significantly. Your historical analysis will demonstrate costs for projects developed in an environment where full cost deep connection charging was the norm. As we move to shallower charging we would expect that developers would be less concerned to select locations with low infrastructure enhancement costs. This must be taken into account in future estimation.

We have also referred above to the prospect for clustering future developments in favoured locations. For potential development sites we need to be able to draw attention to the infrastructure costs necessary to open up access for a number of future projects, and to understand what efficiency tests might be applied to such work.

Lastly, in regard to Table 4b it is not clear from the draft that you expect this to be filled in line by line for the 13 fuel/technology types. We certainly believe that we will be able to do this for most of the 13 types, although we might have to combine some of the CHP lines.

### 5 Timetable

We understand your desire to collect some information on distributed generation early, since this is a new area of assessment. However it is less easy to see why the final submission of cost projections should precede the overall base cost estimates. We would expect the DG-BPQ to represent sensitivity analysis on the overall Forecast BPQ. The impact of different levels of Distributed Generation needs to be seen as variations to our base cost projections for the plan period. We would expect you to want the central case to be consistent with the government's targets for the development of renewables and CHP by 2010. As indicated above we suggest sensitivities should cover the means of meeting, or exceeding, renewables targets, but should also consider a more pessimistic view on CHP.

Finally, I would also like to question the extent to which it might be appropriate for you to publish the information gathered in any DG–BPQ. As it is currently drafted, data is provided on a project by project basis. This may be commercially sensitive for us, and more likely, for

the developer or potential developer. We would therefore encourage you to consider the level of aggregation of data before it is released in public.

I hope you find our comments helpful. We would be pleased to meet with you again to continue to discuss the detail of your proposals.

Yours sincerely,

Mike Boxall Head of Electricity Regulation