LE Group
Templar House
81–87 High Holborn
London WC1V 6NU

Tel: +44 (0)20 7242 9050
LDE DX 487
www.le-group.co.uk

Date | Our Ref | Your Ref

25 April 2003

Min Zhu
Technical Advisor
Ofgem
9 Millbank
SW1P 3GE

Dear Min Zhu,

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

We are responding to the letter dated 21 March 2003 from Martin Crouch concerning the above questionnaire and associated issues. We are aware that the provision of information in this area is likely to require significant effort and are therefore grateful for this opportunity to indicate our views.

LE Group (LEG) has significant interests in many aspects of the UK's gas and electricity trading framework. These include:

- Three licensed electricity distribution network operators (EPN, LPN and SPN);
- Interests in licence exempt networks (via LES and SEEBOARD Power Link);
- Gas and electricity supply businesses (under the London Electricity, SWEB, Virgin HomeEnergy and SEEBOARD Energy brands):
- Generation through the ownership of Cottam, Sutton Bridge and West Burton power stations and the development of off-shore wind-farms;
- Metering and data services (ECS).

As this consultation will form part of an on-going process to improve the understanding of DG (Distributed Generation) in the industry we provide below some general comments arising from the questionnaire. You will note that we made earlier comments on the wider DG issues in our response to Callum McCarthy's "open letter" to DNOs in Jan 2003. Our detailed response with reference to the draft DG business plan questionnaire (BPQ) tables is presented in Attachment A.

Overview and thoughts on draft DG-BPQ

Past DG projects vs. forecast scenarios: we note Ofgem's recognition that an important task for the forthcoming review of distribution price controls is to develop appropriate incentives for the distribution network operators to connect and provide network access to DG. We also note the proposition that major growth in DG could have a dramatic impact on distribution networks to the extent of requiring a "re-wiring of Britain". We are actively looking at the issues associated with the connection of DG schemes, at all voltage levels, under a range of growth scenarios.

The draft BPQ seems to be using detailed information on costs and the upstream network impact of historic projects, presumably, to inform views on future forecasts and proposed regulatory processes and incentives. Care will need to be taken in interpreting this information. Clearly, a 'straight line' extrapolation from historic information is of limited value where individual projects are likely to be very different and where the volume of activity is likely to greatly vary in the future when compared to the past. It is worth noting that until now for the vast majority of DG connections the customer has wholly funded costs. Additionally the main driver of such existing schemes has frequently been customer needs (such as standby generation or CHP schemes arising from the requirement to provide heat). In the future, charging schemes may differ – perhaps as a result of the application of a "shallower" connection charge policy – with a consequential impact on connection costs.

In terms of future scenarios, our current view is that we would present our forecasts by each technology type (e.g. wind, biomass, solar) using the latest market and other information regarding these technologies. We are keeping abreast of the main technology (in terms of largest potential capacity) – wind generation – as well as other initiatives at various stages of development (such as flywheel regeneration, coolant storage, micro-CHP etc). This broadly aligns with the questionnaire structure that you are proposing. However this is an uncertain field and we would encourage as much use as possible of joint industry research, such as that being carried out under the auspices of the Distributed Generation Co-ordinating Group (the DGCG).

- **Cost impact assessment and shared costs**

As mentioned above, the customer has predominantly funded existing DG projects. Also, few schemes have arisen where it would have been possible to recognise the benefit of avoided network infrastructure expenditure. However, there have been a small number of projects where, if the appropriate regulatory environment and commercial arrangements had been in place, it may have been possible to take the DG into account in assessing reinforcement plans for the surrounding network. As you will be aware this issue (i.e. "recognising" DG capacity) is a complex one and is being addressed by one of the DGCG Technical Steering Group (TSG) work-steams which is considering changes to the P2/5 planning standard. We continue to contribute to this work and await its conclusion in order to assess what

avoided network reinforcement benefits DG could bring. Until then, it is very difficult to assess the future impact of DG projects on shared or avoided costs.

- **Data availability issues**

We have over the last few years been improving the records of DG projects on all three of our networks (EPN, LPN and SPN). You will see from our detailed comments that we have not held some of the data requested for historic projects, but can endeavour to do so for the future. We have found that many DG schemes originate as standby generation capacity which customers have previously had and they now see a benefit in running in parallel with our network. You should note that we do not count standby generation, which only parallels for a short time for testing purposes, as a DG scheme (since there is no significant export of energy, and anyway in many cases no metering would have been provided to record it).

- **Additional information**

(a) As we mentioned in our response to the open letter from Callum McCarthy we continue to be interested in the concept of Power Zones. It may be worthwhile to have information about such Zones specifically covered in the DG-BPQ.

(b) We will be providing a narrative to explain our future forecast scenarios and our sources of market information. It would be useful to see similar presentations from other companies and the assumptions they have made including any relevant market information. You may wish to add a note requesting this information under Table 4a.

(c) We are happy to have certain information in the DG-BPQ to be made available to other companies through the Ofgem website. However, this should excluding cost information included in a number of the tables.

(d) You ask for the number and capacity of DG projects commissioned between April 2000 and March 2003, and between April 1995 and March 2000. This is provided for the three networks in attachment B.

We hope you find our response useful and would be happy to discuss any of these issues further.

Paul Delamare
Head of Price Control Review

Attachment A

DISTRIBUTION PRICE CONTROL REVIEW – BUSINESS PLAN QUESTIONNAIRE RELATING TO DISTRIBUTED GENERATION (Ofgem Draft issued 21 March 2003)

Detailed comments

HISTORICAL

Table 1.1a

- Connection application dates, connection offer dates, and connection accepted dates may be approximate or not available for older projects.
- The "average annual output" of the generator may not be available to the DNO. Information will be limited to the export from the site, where metered

Table 1.1b

- As indicated in the letter we will need clarification on the level of detail (e.g. transformers, lines / cables etc) and the definition of "sole use assets involved"
- Data on "return included in connection charge" is limited or not available for historic projects
- As mentioned in our covering letter the majority of historic projects have not been regarded as having "shared assets" but could do so in the future

Table 1.1c

- There are very few cases where "annualised connection charges" have been used
- "constraints" and "ancillary services" arrangements have not been used to date
- We have found that the "average distribution loss factor" calculations require considerable work and have not been warranted for schemes to date
- "implications of QOS performance" has not been assessed

Table 1.2a and 1.2b

- As mentioned in our covering letter the scope for sharing of costs or cost avoidance has been very limited. We do not have significant information on these types of costs

Table 1.3

- No comment at present

INTERIM PERIOD

Table 2.1a

- Please confirm that “expected average annual output” refers to export from the site

Table 2.1b

- Comments as for historic tables i.e. no scope for sharing of costs for projects registered to date

Table 2.1c

- Comments as for historic tables i.e. no commercial arrangements in place for constraints and associated payments. Also, calculation of distribution loss factor not warranted for current schemes; calculation of QOS impact not possible without revision to P2/5 (or definition of possible Power Zone allowances framework)

Table 2.2a and 2.2b

- As mentioned in our covering letter the scope for sharing of costs has been very limited. We do not have significant information on these types of costs

Table 2.3

- No comment at present

FUTURE BASELINE

Table 3.1a

- There are relatively few projects registered for the period 2005/06 to 2009/10. Information for specific projects will be provided where available.

Table 3.1b

- We have mentioned that for interim period and historic projects there has been no scope for sharing of costs. For future projects this will be actively considered although the processes and regulatory arrangements to allow this to happen have not yet been determined. Where there is a possibility for any future projects currently registered to benefit from shared costs this will be presented.

Table 3.1c

- As for table 3.1b where there are possibilities for ancillary services or quality of supply improvements for any registered projects for the future baseline period these will be presented. Also, we will provide further comment on the practicability of distribution loss factor calculations for specific schemes.

Table 3.2a and 3.2b

- As for table 3.1c if there are any possibilities for shared or avoided networks costs consequent to a DG scheme these will be presented with the specific scheme

Table 3.3

- No comment at present

FUTURE INCREMENTAL

General

There should be a limited number of scenarios, say two. One should be based on the achievement of the 2010 Government targets for renewables and CHP. A second could be based on a percentage achievement of these targets.

We are sceptical that information about DG capacity headroom at various locations, or the cost of connecting DG at different location and/or voltage levels can be produced with sufficient precision to be useful.

Table 4a

As discussed in our covering letter we propose to present forecasts of DG by each technology type, giving our sources of market information or any other

relevant research available. This will take account of information provided by industry working groups such as the DGCG/TSG work-streams.

Table 4b

As mentioned above the necessary commercial frameworks for ancillary services, constraint payments, and recovery of shared costs have not been in place to date. This will make it very difficult to give a forecast for such costs for the period 2005/06 to 2009/10. We will provide comment on our general thinking and expectation, as well as views on the impact on losses and quality of supply performance. However it should be noted that any figures quoted will be subject to a large margin for error.

Attachment B

DISTRIBUTION PRICE CONTROL REVIEW – BUSINESS PLAN QUESTIONNAIRE RELATING TO DISTRIBUTED GENERATION (Ofgem Draft issued 21 March 2003)

Current and proposed projects

- The total number and capacity of DG projects whose full commissioning dates were between 1 April 2000 and 31st March 2003

  EPN

  Total of 69 projects with total capacity of 431.0MVA.

  LPN

  Total of 108 projects with total capacity of 133.18MVA.

  SPN

  Total of 32 projects with total capacity of 525MVA

- The total number and capacity of DG projects whose full commissioning dates were between 1 April 1995 and 31st March 2000

  EPN

  Total of 48 projects with total capacity of 750.7MVA.

  LPN

  Total of 64 projects with total capacity of 105.04MVA.

  SPN

  Total of 34 projects with total capacity of 265MVA.