OFGEM'S RESPONSE TO THE EMBEDDED GENERATION WORKING GROUP REPORT ON NETWORK ACCESS ISSUES.

1. INTRODUCTION

1.1 On 12 January 2001 DTI published the report of the Embedded Generation Working Group (EGWG). Ofgem welcomed the report and undertook to give careful consideration to its recommendations aimed at enabling embedded generation companies to compete on a level playing field with other types of generator. Ofgem recognised that detailed analysis was likely to be required to produce appropriate charges for embedded generators and to put suitable incentives on electricity distribution companies to enable embedded generation to be provided on fair and transparent terms, while maintaining the security of supply. This response gives Ofgem's further views and describes how Ofgem intends to take forward a programme of work to address the report's recommendations.

1.2 The report suggests the need for a reassessment of distribution charges, planning and other standards, and the information that is made available to embedded generators. In line with Government policy, it envisages a significant increase, over the next ten years, in the amount of generation connected to distribution networks. Other regulated electricity businesses are likely to be affected.

1.3 Embedded generation may have significant implications for the regulation of distribution businesses and for the environmental impact of generation. Ofgem will need to take the lead in respect of much of the work envisaged by the report. This work will have to be co-ordinated both across many of Ofgem's workstreams and with other organisations.

1.4 Section 50 of the Utilities Act 2000 imposes a new obligation on Distribution Network Operators (DNOs) to facilitate competition in the supply and generation of electricity. Ofgem must secure assurance of compliance with that obligation. Ofgem's principal objective is to protect the interests of consumers, where appropriate by promoting effective competition. A project aimed at securing that embedded generation can compete effectively would accord with both these obligations. However, Ofgem considers that the Government may need to take additional action to secure the full realisation of its objectives in respect of embedded generation.

1.5 It is important to understand that the EGWG produced recommendations, and that a series of issues will need to be considered further. Ofgem is committed to a proper examination of the EGWG recommendations, in the context of our statutory duties and full work programme.

2. TIMETABLE

Context

2.1 The EGWG was formed in response to the DTI's November 1999 consultation paper on Network Access Management Issues and against the background of the Government's targets for higher levels of combined heat and power (CHP) and renewable plant by 2010. EGWG's report makes two major recommendations and other, more detailed, ones.

2.2 Ofgem intends at first to focus on the major recommendations, which will shape the work that we shall undertake. They are that:

- Ofgem should review the structure of regulatory incentives on DNOs in the light of the new statutory duty on DNOs to facilitate competition ; and that

- a group should be established under Government leadership to co-ordinate and take forward the implementation of EGWG's recommendations for the longer term.

2.3 The report's detailed recommendations cover a considerable number of issues and areas of activity in respect of which action may need to be taken. The immediate task will be to discuss, with others, what relative priority should be given to the large number of detailed recommendations.

Regulatory incentives

2.4 A review of regulatory incentives affecting embedded generation will have to cover distribution price controls and policies on charging for new connections. The current distribution price control, which has been set for a period of five years, took effect in April 2000. Some interim changes may be appropriate, leaving major work on incentives for the next distribution price control review.

2.5 Ofgem's current review of distribution charge structures, due for completion in September 2001, might sensibly include some initial consideration of future work on incentives and embedded generation in respect of measures for introduction before 2005.

Co-ordination

2.6 Many of the specific actions proposed in the EGWG report are regulatory matters for Ofgem to take forward. Ofgem has, however, held preliminary discussions with DTI and DETR officials about the establishment of a small advisory group to maintain an overview of progress on embedded generation issues in their wider context. This advisory group should report to Ofgem, DTI and DETR jointly. Ofgem would

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Section 9 of the Electricity Act 1989, as modified by section 50 of the Utilities Act 2000.

support such a group's being established shortly. It might well be appropriate for such an advisory group to be supported by a technical working group.

Programme of work

2.7 The EGWG Report sets out a possible timetable for work. Suggested milestones for work in key areas are:

Serial	Milestone	Target Date
1	Review of options for future network design	Autumn 2001
2	Connection process guide	January 2002
3	Review of Engineering Recommendation P2/5[2]	January 2002
4	Identification of any short-term changes to price controls	January 2002
5	Format for provision of information by distributors	January 2002
6	Studies related to power quality and the technical contribution of embedded generation	January 2003
7	Development of 'information packages' for potential embedded generators	June 2003
8	Work on 'Island operation' of embedded generation	January 2003
9	Review of options for control and management of networks	January 2003
10	Review of options for domestic and micro generation	January 2003
11	Analysis of network design practice	January 2004
12	Review of incentives in price controls	April 2005
13	Implementation of revised charging principles	June 2005
14	Implementation of revised network design package	After 2005

2.8 Ofgem considers this to be a challenging, outline timetable for work in the longer term. It constitutes a useful guide for a programme of work, the final outcome of which it is not yet possible to forecast in detail. Many of these issues need to be considered as part of existing areas of Ofgem work (see Section 4). As a result of more detailed consideration, some modifications to the way in which issues in the later milestones will need to be considered are likely to be found necessary.

3. PROJECT MANAGEMENT

3.1 The work envisaged in the EGWG report is characterised by its scale and duration. It amounts to a significant reassessment of the management of distribution networks, with probable consequences for transmission and supply as well as for established generation. Ofgem proposes to set up a project team, within its Social and Environmental Affairs Directorate, to co-ordinate the work in England and Wales. Management of the project within Ofgem would be the responsibility of a multi-

[2] Distributors are required to develop their networks to comply with the security requirements of Engineering Recommendation P2/5. It is, therefore, a major influence on network design.

disciplinary project board, which would also consider proposals resulting from reviews conducted by the electricity supply industry.

3.2 Ofgem is participating in a separate working group in Scotland, under the aegis of the Scottish Executive, to consider those aspects of embedded generation that are peculiar to the electricity supply industry in Scotland. It will be important to ensure effective co-ordination of Scottish initiatives with related work in England and Wales. It will be sensible to develop a coherent approach across Great Britain as a whole, for example in response to the British Electricity Trading and Transmission Access (BETTA) initiative.

3.3 Ofgem envisages that its embedded generation project board would keep a wider advisory group informed of progress with the regulatory recommendations of the EGWG Report. At the end of the project, Ofgem would contribute to the advisory group's final report. In addition, Ofgem will publish consultation and decision documents in the normal way, on issues relevant to embedded generation.

3.4 Although costs will initially be low, the project will represent a considerable resource commitment across Ofgem over some five or six years, and significantly in excess of that which would be apparent in respect of the project team itself.

4. CO-ORDINATION WITH RELATED WORK

General outline

4.1 The scope of the EGWG's recommendations is such that they cut across a number of major projects already featuring in Ofgem's corporate plan. This creates the opportunity to manage a viable, long-term project aimed at co-ordinating elements of a wide range of activities. The following paragraphs outline Ofgem's intended approach to the co-ordination of these workstreams.

Distribution price controls

4.2 Distribution Network operators (DNOs) currently derive their revenue from Distribution use of system (DUoS) charges paid by load customers. Generators do not pay DUoS charges. Following Ofgem's December 2000 paper[3], Ofgem is currently reviewing distribution-charging principles, and expects to publish conclusions by the autumn of 2001.

4.3 The report suggests reviews of the bases of distribution price control and the incentive framework. Under the existing price control regime, distribution businesses have incentives to make efficiencies in both operating and capital costs. The present distribution price control increases the incentives on companies to reduce capital expenditure. Nevertheless it may be appropriate to reconsider these matters, particularly the incentives on distribution businesses to connect embedded generation, and the role of network planning standards. It will, in addition, be

[3] 'The Structure of Electricity Distribution Charges – Initial Consultation Paper' 21 December 2000.

necessary to consider governance and incentive issues for both DNOs and generators, which may arise as a result of including generators in network security assessment.

4.4 The timetable for Ofgem's present review of the structure of use of system charges does not allow for the resolution of all these issues. Nevertheless, the review will provide an opportunity to establish a revised basis for charging embedded generators, with new charges evolving alongside any proposals for changes in planning standards and with the growth of embedded generation.

4.5 Embedded generators are charged the full ('deep') reinforcement costs associated with their connection. This is in contrast to load customers who in general make only a small contribution to reinforcement costs. Although deep charges provide strong locational signals they may constitute a barrier to the connection of embedded generation, suggesting a major review of distribution charging principles.

Information and incentives project (IIP)

4.6 The IIP is developing an incentives scheme that links financial incentives to the distributors' delivery of certain key outputs in terms of network performance. The present intention is to modify distributors' licences to implement the IIP regime in March 2002. While that would be too early for additional embedded generation to have any significant effect, consideration will have to be given to its likely future consequences for IIP.

4.7 Embedded generation can bring both benefits and potential disadvantages to network performance. The implications of this for IIP and further incentive regimes will need careful consideration.

Metering

4.8 Metering systems, and the charging mechanisms that the different metering regimes permit, are of particular importance to small scale embedded generation. Ofgem is currently developing its strategy for development of competition in the provision of metering and metering services, and is considering what further work might be appropriate to encourage new metering technology. Debate in the House of Lords[4], during the progress of the Utilities Bill through Parliament, highlighted the importance of metering to the development of embedded generation. The Government did not consider it appropriate to prescribe metering systems to encourage embedded generation, but regarded it as appropriate that the market and the regulator should seek to address the issues.

4.9 A number of options are set out in the EGWG rapporteur contribution on 'Options for Domestic and Other Micro-Scale Generation'. Ofgem will consider the implications of each of these for generators and other system users.

[4] Hansard. House of Lords, 5 July 2000, Columns1514 to 1518.

Environmental Action Plan

4.10 Ofgem's embedded generation project will develop within the wider context of its Environmental Action Plan (EAP). The first annual report on the EAP is scheduled for March 2002. It will be important to monitor the contribution of embedded generation as part of the EAP in future years.

4.11 Ofgem has responsibilities for administering some aspects of the Government's policy on renewable generation, the great majority of which is, and will continue to be, embedded in distribution systems. Renewable generation will make an important contribution to the Government's climate change policy.

4.12 Increases in energy efficiency and the reduction of electrical losses from distribution systems are important elements in achieving environmental objectives. Ofgem recognises the contribution that correctly-located embedded generation could make to the reduction of losses. On the other hand, generation from embedded generators, that cannot be absorbed locally, could increase losses. The effectiveness of any policy aimed at securing potential benefits from increased embedded generation will depend on having appropriate incentives in place.

New Electricity Trading Arrangements (NETA)

4.13 The EGWG rapporteur contribution on 'Charging Principles' suggests that, as the amount of connected embedded generation increases, suppliers may be likely to purchase increasing volumes of electricity from embedded generating sets, rather than from the NETA market. Conversely, there may be developments in the aggregation of small generators that might facilitate trading of embedded generation. Developments in the BETTA initiative will also be relevant here.

4.14 It will be important to understand what the likely impact on market and system operation might be for a range of scenarios encompassing different quantities of newly-connected embedded generation.

Provision of information to potential embedded generators

4.15 Additionally, there are issues around the present lack of published information about the best locations for new embedded generation. These may be addressed through developments in reporting under the standard distribution licences, which will soon apply to DNOs.

5. SUMMARY

5.1 Ofgem welcomes the EGWG report, and will set up a project team to take forward the various issues arising from it. The project will co-ordinate work on price controls, charging mechanisms, distribution system performance, metering and

trading arrangements as they affect the future of embedded generation – within the wider context of Ofgem's Environmental Action Plan.

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