June 2002

Electricity (Connection Charges) Regulations

A consultation document

Executive summary

Those who request a connection to an electricity distribution system have to pay for the new network assets associated with their connection. A feature of the existing mechanism for charging for connection is that such 'initial contributors' may subsequently find that those seeking later connections, to the same part of the network, make partial use of those new assets - without having to pay anything in respect of them. Connection charges for subsequent connections can thus be significantly lower than those paid by the 'initial contributor'. The 'second comer' can therefore 'free-ride' on the initial investment.

Currently The Electricity (Connection Charges) Regulations 2002 (which replaced similar regulations that came into force in 1990) provide an exception for domestic connections, such that an 'initial contributor' could expect partial reimbursement in these circumstances. The Distribution Network Operator (DNO) can charge second comers for a portion of the value of the new assets, and can reimburse the initial contributor. Applying only to domestic connections, this exception extends neither to industrial and commercial demand connections, nor to the connection of distributed generation.

As part of a wider initiative to remove inappropriate charges and perverse incentives that might unjustifiably inhibit the development of distributed generation, Ofgem undertook to consider what interim measures might be taken – before completion of the next distribution price control review^a. Extending the mechanism for partial reimbursement of initial contributors to distributed generation is one such measure.

There is also a strong case for extending the scope of the Regulations to industrial and commercial demand connections. Ofgem has been approached by developers, and by a regional development agency, seeking a way for Ofgem to enable DNOs to facilitate extension of the electricity infrastructure. Ofgem has also held discussions with DNOs about the Regulations in this context and has concluded that extending the reimbursement mechanism to them would achieve comparable, consistent and equitable treatment of all demand connections.

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^a The new distribution price control is due to take effect from 1 April 2005.

Ofgem now wishes to consult on proposed changes to the Regulations which would permit partial reimbursement of all 'initial contributors' and would place DNOs under a duty to maintain appropriate records for the purpose.

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1. Introduction

Purpose of this document

- 1.1 This document proposes amendment of The Electricity (Connection Charges)
 Regulations 2002^a ("the Regulations") to:
 - extend their scope to non-domestic connections, so as to enable partial reimbursement of an initial contributor in such cases;
 - contribute to the equitable treatment of distributed generators; and to
 - ensure that distribution network operators (DNOs) maintain records adequate to support reimbursement in accordance with the Regulations.
- 1.2 Draft, amendment Regulations are set out in the Appendix to this consultation document.

Legal Background

- 1.3 The Electricity (Connection Charges) Regulations 2002 provide for an electricity distributor to recover from subsequent users of electric lines and electrical plant, first provided for the purpose of giving a connection to the premises or distribution system of another person, an amount in respect of the expenses incurred in first providing that line or plant. In the case of further connections to domestic premises, the current Regulations also provide for amounts so recovered to be applied in making refunds to persons who have previously been required to pay amounts in respect of such expenses ('initial contributors').
- 1.4 Thus the Regulations permit partial reimbursement of the initial contributor from connection charges levied on second-comers. However, this only applies in the case of domestic premises. DNOs have the option of charging the initial contributor a lower amount in the first instance, in the expectation that there would be subsequent connections from which the balance of costs could be

^a The Electricity (Connection Charges) Regulations 2002 (S.I. 2002/93) came into force on 11 Februaury 2002. They replace the Electricity (Connection Charges) Regulations 1990 (S.I. 1990/527), but make only consequential changes, resulting from the Utilities Act 2000. The Regulations may be ordered from: www.clicktso.com/bookstore.asp?AF=A10034&FO=32180&Action=Book&ProductID=0110393384

- recovered. However, such a policy would result in a risk to the DNO of losing money where subsequent anticipated connections do not materialise.
- 1.5 The Regulations are made by the Secretary of State after consultation with the Gas and Electricity Markets Authority, and in accordance with sections 19(2) and (3), 60 and 64(1) of the Electricity Act 1989^b ("The Electricity Act"), (as amended by the Utilities Act 2000°). However, following good practice and in compliance with Cabinet Office guidelines, a public consultation is being undertaken.
- 1.6 Section 19 of the Electricity Act 1989 (as amended by section 46 of the Utilities Act 2000) would permit amendment of the Regulations to extend their scope beyond domestic connections.

Policy background

- 1.7 Explicit introduction of partial reimbursement for initial contributors in the case of non-domestic connections would help to provide for equitable allocation of costs. This is true of both distributed generators and industrial and commercial connections. At present, however, DNOs levy different types of connection charge on demand and generation connections. Demand connections pay only 'shallowish' charges representing the costs of local reinforcement. Any additional, 'deep', costs relating to further network reinforcement, are met from allowed Use of System (UoS) revenue. Distributed generators do not pay UoS charges, but are currently required to pay for both 'shallow' and site-specific 'deep' costs in advance of connection. Ofgem considers that these 'up-front' charges may frequently constitute an obstacle to the connection of distributed generation.
- 1.8 If generators, like demand connections, paid only 'shallow' (or 'shallowish') connection charges, reimbursement of some of the costs associated with deeper reinforcement would be less of an issue. Subsequent connections would be unlikely to make use of network assets financed from charges in respect of an earlier, individual scheme. As an interim arrangement, Ofgem has proposed that distributed generators should have the option of paying the 'shallow costs' in advance of connection and of paying the 'deep' costs in the form of negotiated,

b 1989 c.29

c 2000 c.27

annual charges. However, it is anticipated that some prospective distributed generators will opt to pay both, 'shallow' and 'deep' charges in advance of connection. Following consultation, Ofgem will be reviewing connection charging methodology for distributed generators further as part of the next distribution price control which is scheduled to take effect in April 2005.

- 1.9 Moreover, the proposed location for some distributed generation may mean that 'shallow' charges could be considerable^d, and that the equitable treatment of the would-be distributed generator would require some provision to prevent 'free-riding' by second-comer connections. Reimbursement would therefore continue to be an important issue after any move to a 'shallow' charging regime (combined with some sort of UoS charge) for distributed generators.
- 1.10 Developers and a regional development agency seeking a way for Ofgem to enable DNOs to facilitate the extension of electricity infrastructure have approached Ofgem. Ofgem has also had discussions with DNOs to determine whether the Regulations were useful in their current form to resolve these problems. Ofgem has concluded that an amendment to the Regulations is justified in relation to the extension of electricity infrastructure.

References

- 1.11 As background to this consultation document, readers might find it helpful to consult the following documents that are available on the Ofgem website www.ofgem.gov.uk:
 - Electricity and Gas Connection Charge Regulations: Consultation, Ofgem April 2001;
 - Embedded generation: price controls, incentives and connection charging: A
 preliminary consultation document, Ofgem September 2001; and
 - Distributed generation: price controls, incentives and connection charging:
 Further discussion, recommendations and future action, Ofgem March 2002.

^d Given the radial nature of distribution networks and the likelihood of 'generation only spurs' being treated as connection assets, even under a 'shallow' connection charging policy, the need for reimbursement may well be a continuing issue.

Rationale

- 1.12 The Secretary of State and Ofgem have a principal statutory objective in carrying out their functions under Part I of the Electricity Act to protect the interests of consumers (including future consumers), wherever appropriate by promoting effective competition. Increased distributed generation may bring benefits in terms of the reliability and security of supply and, in the longer term, reduce the price of electricity. Ofgem and the Secretary of State are also required to carry out their functions under the Electricity Act in the manner that it or she considers is best calculated to secure a diverse and viable long-term energy supply^e. Requirements of diversity and viability suggest work on ensuring non-discriminatory generator access to networks and that network investment does not create bias in the development of particular generating technologies.
- 1.13 The Government's draft guidance on social and environmental matters in relation to electricity (made under section 14 of the Utilities Act 2000) specifically asks Ofgem, taking account of its duty to encourage competition in generation, to have regard to a number of key factors. In the present context, these include the desirability of removing barriers to distributed generation, and access and charging regimes for the connection of distributed generation on fair and transparent terms.
- 1.14 Ofgem's March 2002 paper built on the work of the Embedded Generation Working Group (EGWG), the findings of which were published by the DTI on 12 January 2001 (www.dti.gov.uk/energy/egwg/index.htm). The focus of the consultation was to ask whether it might be appropriate to change the regulatory framework to remove perceived barriers to the connection of greater quantities of distributed generating capacity. In particular, the consultation explored the possibility of making some interim changes, rather than waiting until the implementation of the next distribution price control, in April 2005. This consultation documents suggests a significant change that could be made quickly.

^e See section 3A of the Electricity Act 1989, as substituted by section 13 of the Utilities Act 2000.

- 1.15 Ofgem conducted the April 2001 consultation on connection charge regulations partly on behalf of, and in close consultation with, DTI. It seemed appropriate to adopt a similar approach to the present consultation.
- 1.16 The great majority of smaller customers will not be directly affected by the changes proposed here, although the amendments could often create significant new business opportunities for industrial and commercial customers. DNOs may have to modify their present arrangements for partially reimbursing 'initial contributors' from the proceeds of subsequent connections. To varying degrees, new or modified record systems will need to be developed to support such reimbursement. Depending on the timing and location of prospective distributed generation schemes, the proposed amendments may help to create a more favourable environment than that in which developers presently operate. The proposal should, however, be seen as part of wider initiative to ensure the equitable treatment of distributed generation.
- This consultation forms part of the continuing work on distributed generation envisaged in Ofgem's 2001/2 Plan and Budget (March 2001) (www.ofgem.gov.uk) on responding to the main EGWG recommendations and in putting in place a programme of work to address its secondary recommendations. There is an undertaking in Ofgem's (April 2002) Corporate Strategy and Plan 2002-2005 (www.ofgem.gov.uk) to remove unfair regulatory barriers that may prevent the development of distributed generation. Moreover, the changes proposed in this document are consistent with, and should effectively complement, other organisations' initiatives. These include work already being undertaken by the Electricity Supply Industry and under the DTI's New and Renewable Energy Programme.

Structure of the document

1.18 Chapter 2 of this document puts the consultation into the wider policy context. Chapter 3 explains how the underlying thinking has developed through earlier consultations. Chapter 4 sets out the reasons for making the proposed amendments to the Regulations, while Chapter 5 provides a brief, plain-English summary of what is intended. The full, draft text of the proposed Amendment Regulations is in the Appendix to this document.

Responding to this document

1.19 The deadline for responses to this consultation is Friday, 23 August 2002. Responses should be sent to:

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1.20 If you have any queries regarding the issues raised in this document, Arthur Cooke or Steve McBurney on 020-7901-7371 (E-mail: steve.mcburney@ofgem.gov.uk) would be pleased to assist you.

Confidentiality

- 1.21 In accordance with our normal practice, we intend to make responses to this consultation publicly available, through the Ofgem Library. However, if asked to do so, we shall respect the confidentiality of any response. Respondents wishing their responses to remain confidential should clearly mark the document to that effect.
- 1.22 Ofgem welcomes responses by e-mail or fax, but would ask those submitting responses in these ways to make it clear whether any standard reference to confidentiality is specifically intended to cover the document in question.

2. The wider policy environment

- 2.1 Reflecting its obligations under the Kyoto Agreement, the Government has set environmental targets of achieving 10 GW of CHP by 2010 and to generate 10% of electricity from renewable sources by the same date. Many renewable generators, because of their likely size and/or location, will be connected to distribution networks as 'distributed generation'. Ofgem is committed to ensuring that prospective distributed generation does not face inappropriate barriers to market entry or unfair competition from other forms of generation.
- 2.2 Following the DTI's November 1999 consultation paper on Network Access Management Issues, a joint government/industry working group (the Embedded Generation Working Group EGWG) was established to consider technical, charging and information issues relevant to the likely increase in distributed generation, as well as longer-term questions of distribution network design and active network management. DTI published EGWG's findings on 12 January 2001 (www.dti.gov.uk/energy/egwg/index.htm).Its two main recommendations were 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 present consultation is one aspect of Ofgem's response to the first of those recommendations. It forms part of a wider Distributed Generation Project and accords with Ofgem's Environmental Action Plan, which is available on www.ofgem.gov.uk/docs2001/50eap.pdf.
- 2.4 The second recommendation has been addressed by the creation of the Distributed Generation Co-ordinating Group (DGCG), jointly chaired by the DTI and Ofgem. The DGCG has appointed a Technical Steering Group (TSG) to manage a number technical and technical/commercial workstreams associated with distributed generation. The TSG will be invited to comment on the proposals in the consultation.

3. Earlier consultations

The Utilities Act 2000

3.1 It was recognised, at the time that the Utilities Act 2000 received Royal Assent, that distributed generation would necessitate modification of the Electricity (Connection Charges) Regulations 1990. At that time, however, the priority was to ensure that the 1990 Regulations were amended to accord with the provisions of the new primary legislation – particularly in respect of the separation of electricity supply and distribution and the abolition of Public Electricity Suppliers (PESs). It was not then clear quite what modifications would be appropriate to improve the relative position of distributed generators. Following consultation^r, Ofgem and the DTI agreed that amendment only to ensure consistency with the provisions of the Utilities Act 2000, would be an appropriate interim step. The result was the Regulations.

Consultation on distributed generation

- 3.2 As more distributed generation is connected, the situation will increasingly arise in which, under a 'deep' connection charging regime, a subsequent generation connection might 'free-ride' in the use of expensive network assets paid for by an earlier generation connection (the 'initial contributor') to the same part of the network. This suggests some mechanism for partial reimbursement of the initial contributor from the proceeds of the subsequent connection. Acknowledging that this issue, with its wider implications, could not be fully resolved as part of an interim arrangement to remove barriers to the entry of distributed generation, Ofgem's September 2001 consultation paper^g (paragraph 5.49) asked for preliminary views on the issue.
- 3.3 Responses to the September 2001 consultation displayed considerable consensus as to the need for equitable treatment of initial contributors, although they highlighted a range of views on practicability and on how any reimbursement mechanism should operate.

f 'Electricity and gas connections: Charge regulations', Ofgem April 2001.

⁹ Embedded generation: price controls, incentives and connection charging: A preliminary consultation document', Ofgem, September 2001.

- 3.4 Some generator responses commented on reimbursement in the context of the debate about 'deep' and 'shallow' connection charge options. One regarded inequities in the treatment of first and second comers as an example of the drawbacks of 'deep' charging methodology. While a move to 'shallow' charging and Generator Distribution Use of System (GDUoS) charges would provide a more equitable basis for charging distributed generation, Ofgem concluded that more equitable provision, now, for partial reimbursement from the proceeds of subsequent connection would constitute a significant step towards improving the prospects for distributed generation.
- 3.5 The response from energywatch shared the view of generators that it should be possible for DNOs to maintain adequate records to support the reimbursement of initial generation contributors. Ofgem takes the view that such record-keeping arrangements could readily extend to industrial and commercial demand connections. Some of the existing DNO record systems may not be sufficient to support what is proposed here. However, revised Regulations would not have a retrospective effect.
- 3.6 It has been pointed out that investment appraisals would be unlikely to factor in the possibility of unspecified future reimbursement, and that facilitating reimbursement would not directly incentivise connections. Ofgem is not, however, concerned here with creating a direct incentive, but rather with ensuring equitable treatment of connected parties. Removing the possibility of 'free-riding' by second comers would appear to be helpful in creating a generally more benign environment for distributed generation as well as for industrial and commercial connections.
- 3.7 Subject to responses to this consultation, and in recognition of the fact that the distinction between demand and generation connections to DNOs' networks may become less distinct in the longer term, Ofgem's view is that it should be possible for partial reimbursement of either generation or demand connections to arise from subsequent connections characterised by generation, demand or a combination of the two. There are grounds for further consultation on extending the scope of the Regulations and for introducing a general provision requiring the DNOs to maintain adequate records to support the reimbursement process.

Consultation on industrial and commercial demand connections

- 3.8 Ofgem has been approached by a number of potential connection customers, regional development organisations and DNOs in relation to the possible need to develop new connection charging arrangements for large-scale connections. Such connections may be to individual large industrial customers, new housing developments or mixed domestic and commercial developments.
- 3.9 All DNOs charge for electricity connections on the basis of the minimum scheme necessary to provide the capacity requested by the customer. A result of this policy is that in many cases the minimum scheme connection provides excess capacity which, although not utilised by the customer, they are obliged to pay for. This surplus capacity, once installed, is available for use by any subsequent customer who requests a connection. The subsequent customer is not required to pay for the existing assets, provided to connect the initial customer, as the assets have already been paid for (by the initial customer) and the minimum cost scheme excludes these existing assets when calculating the appropriate connection charge.
- 3.10 A number of solutions to the above problem are available under the current regime. These include the DNO not recovering the full cost of providing assets from the initial customer, in the expectation of subsequent customers requesting a connection. Any outstanding costs can then be recovered through the existing Regulations. Alternatively, a DNO may allow an initial customer to reserve surplus capacity, through on-going reservation payments, enabling the initial customer to sell this capacity to any subsequent customers. Reservation payments tend to be very high, making this solution prohibitively expensive.
- 3.11 The solution in paragraph 3.10 above does not address the main problems arising from the current regime for demand connections, which are similar to those identified for distributed generation (see paragraph 3.2). Specifically, problems mainly arise from the free-rider problem of subsequent customers using assets for which the first customer had to pay. This can create incentive problems for connections to proceed. This is discussed in paragraph 4.2 below.

4. The need for change

Extended scope

- 4.1 The Regulations require amendment to permit the partial reimbursement of distributed generator initial contributors, and to accord equal treatment to other non-domestic connections. Because their location is usually dictated by the availability of a particular type of energy required for the prime mover (e.g. wind, biomass, or water) renewable generators will often cluster on parts of distribution networks requiring reinforcement to accommodate them.
 Circumstances in which it would be equitable to reimburse initial contributors are therefore likely to become much more common than has hitherto been the case.
- 4.2 Removing the possibility of 'free-riding' by second comers would be helpful in creating a generally more benign environment for distributed generation. These considerations also apply to other non-domestic connections, where a single developer or industrial/commercial customer may have to bear all reinforcement costs for an extension to the distribution network. Although industrial/commercial customers face connection charges which are 'shallowish', typically, extending the network capacity to meet demand means considerable reinforcement costs are payable by the customer. The size of upfront costs, with no opportunity for reimbursement from second-comers, acts as a significant disincentive to proceed with a connection for developers and other non-domestic customers.
- 4.3 It is also relevant that domestic CHP (DCHP), photovoltaic and similarly sized commercial micro-generation installations will be among the first to start blurring the present clear distinction between demand and generation connections. Domestic connection will no longer be regarded as exclusively a matter of demand. DCHP and micro-generation may impact significantly on some distribution networks from about 2003/04. The existing limitation of the Regulations' scope to domestic connections will become increasingly inappropriate.

Improved record-keeping

- 4.4 Ofgem is aware of some apparent variation in the extent to which DNOs (and their predecessor PESs) organised themselves to comply with the Regulations. The energywatch response to the September 2001 consultation indicated that it had also noticed this. It may be that some PESs only rarely encountered instances in which a domestic connection would have attracted a reimbursement. Another factor may have been a lack of consumer information about the Regulations. In such circumstances, the requisite record keeping may have seemed relatively burdensome. If partial reimbursement of generator initial contributors were likely to be more commonplace, the administrative framework to support it ought to appear proportionately less costly.
- 4.5 Ofgem does not accept that maintaining adequate records to support reimbursement of initial contributor distributed generators would be disproportionately onerous or expensive. There was nothing in the responses to the September 2001 consultation to lend convincing support such a view. Indeed, reimbursement would appear to be an important adjunct to cost-reflective connection charging. DNOs would have to carry out varying amounts of work to render their records suitable to allow partial reimbursement of generator initial contributors. However, the consensus appears to be that such changes would be feasible. As already stated, the amendments proposed here would not have a retrospective effect.
- 4.6 It is not proposed that a new obligation to keep records should create a new offence. It would be open to Ofgem to propose a licence modification requiring compliance with a new obligation on record keeping, but there is no present intention to do so. As several DNO responses to the September 2001 consultation expressed willingness to keep adequate records, it may be that no regulatory sanction will be required. However, a breach of the record-keeping obligation in the proposed Regulation 8A might be actionable at the instance of an 'initial contributor'.

5. Summary of proposed amendments

- 5.1 This chapter briefly summarises the proposed amendments. It should be read in conjunction with the text of the draft Amendment Regulations set out in the Appendix to this document.
- 5.2 In order to extend the scope of the Regulations to generation, industrial and commercial connections, the Amendment Regulations would remove all references to domestic connections and premises.
- 5.3 Sub-paragraph (2) in regulation 6 currently refers to the 'maximum power required' in respect of a connection. The reference would be changed to 'maximum capacity required', to accord with a situation in which relevant connections might either import or export electricity or do either at different times.
- 5.4 The Amendment Regulations would create a new obligation on DNOs to maintain records adequate to support the exercise of their other functions under the Regulations. In recognition of the different options, requirements and current state of record systems, the new obligation has been sufficiently broadly worded as not to be prescriptive as to the mode of compliance.

Appendix: Text of the proposed Amendment Regulations

STATUTORY INSTRUMENTS

2002 No.

ELECTRICITY

The Electricity (Connection Charges) (Amendment) Regulations 2002

Made	2002
Laid before Parliament	2002
Coming into force	2002

The Secretary of State, in exercise of the powers conferred on her by sections 19(2) and (3)^(a), 60 and 64(1)^(b) of the Electricity Act 1989 and after consultation with the Gas and Electricity Markets Authority^(c), hereby makes the following Regulations:—

Citation and commencement

1. These Regulations may be cited as the Electricity (Connection Charges) (Amendment) Regulations 2002 and shall come into force on [] 2002.

Interpretation

2. In these Regulations "the Principal Regulations" means the Electricity (Connection Charges) Regulations 2002^(d).

Amendment of the Principal Regulations

- **3.** (1) The Principal Regulations are amended in accordance with this regulation.
- (2) In regulation 2(1) the definition of "domestic premises" shall be deleted.
- (3) In regulations 3(2) and 6(1) the word "domestic" shall be deleted.
- (4) In regulation 6(1) for "(4)" there shall be substituted "(5)".

⁽a) Section 19 of the Electricity Act 1989 (c. 29) was amended by section 46 of the Utilities Act 2000 (c.27).

⁽b) See the definition of "prescribed". The definition was amended by section 108 of and paragraphs 24, 38(1) and (6) of Schedule 6 to the Utilities Act 2000.

⁽c) The Gas and Electricity Markets Authority was established under section 1(1) of the Utilities Act 2000.

⁽d) S.I. 2002/93

- (5) In regulation 6(2) for "power" there shall be substituted "capacity".
- (6) After regulation 6(4) there shall be added:
 - "(5) The obligation imposed by this regulation shall not apply in the case of any electric line or electrical plant which was provided before [1st January 2003] for the purpose of making a connection to the premises of an initial contributor [where those premises were] not used wholly or mainly for domestic purposes."
- (7) After regulation 8 there shall be added:

"Maintenance of Records

8A. An electricity distributor shall maintain in relation to the provision of any electrical line or plant made on or after [1st January 2003] such records as are necessary to enable him to discharge the obligations imposed on him by these Regulations.".

Minister of State for Energy and Industry,

Department of Trade and Industry

2002

EXPLANATORY NOTE

(This note is not part of the Order)

These Regulations amend the Electricity (Connection Charges) Regulations 2002 ("in the Principal Regulations").

The Principal Regulations provide for an electricity distributor to recover an amount in respect of expenses incurred in the initial provision of electric lines and electrical plant to make a connection to premises or a distribution system. They make particular provision in the case of domestic premises to enable amounts so recovered to be applied in making refunds to persons who have been required to make payments in respect of the provision of such lines and plant.

These Regulations extend the Principal Regulations so that where an initial connection is made on or after [1st January 2003] the possibility of a refund will apply to all initial contributors and not solely those owing or occupying domestic provisions.

Further, the Regulations amend the Principal Regulations to require electricity distributors to maintain records in respect of new connections which are adequate to enable them to meet their obligations under Principal Regulations.