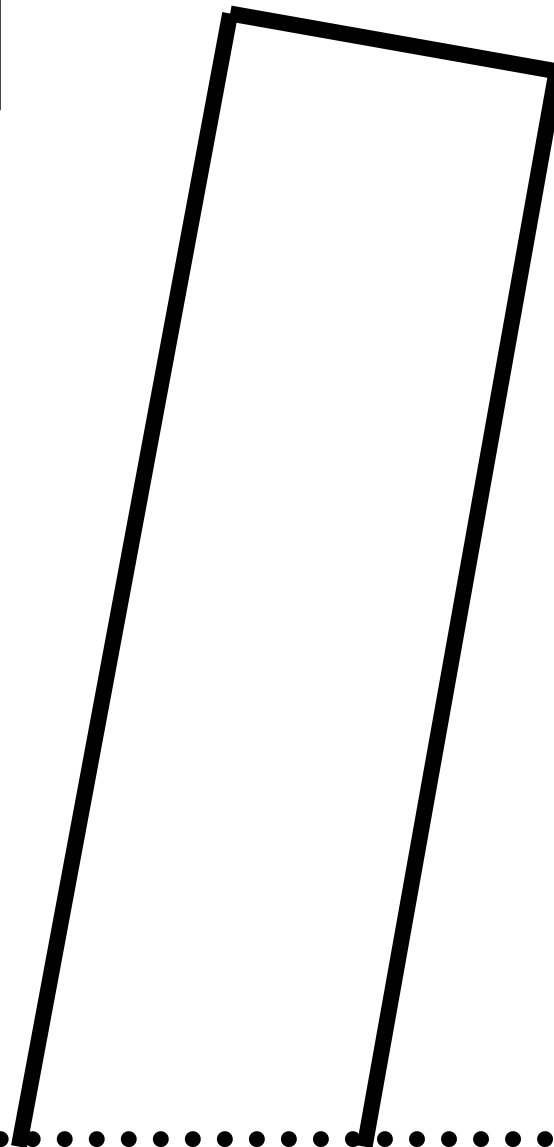


For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact.

“Why ‘Pisa’ about with LLFs?”

A formal Response to Ofgem ref 135/05

Box Ten Ltd Opinions:
Buy Patent GB2309086
to avoid ‘this’ in DNOs!
Leaning Tower of Pisa’s
Tilt = Ten degrees!



Data Handling MEDIOCRITY: it allegedly might take some DNOs less time, & some people won’t notice, until it’s too late!

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact.

Some Essential Phrases / Alphabet Soup – a short Glossary:

DC	Data Collector (but note that the DC may use a Data Retriever (DR)).
DNO	Distribution Network Operator, who operates the “Wires System” – formerly of a PES or REC – used by Suppliers to supply Retail Customers.
DNOs	A collective term, for a collection made up of more than one DNO.
DUoS	Distribution Use of System – may refer to a DNO’s DUoS prices or tariffs.
E7	Economy 7, a type of electricity supply tariff where there is a cheap energy rate for 7 hours at night.
GSP	Grid Supply Point (interface of transmission and distribution systems).
GSPGCF	Grid Supply Point Group Correction Factor – a “fudge factor” used to cover up theft from, and maladministration by, DNO(s) – & also other errors, etc.
HH	Half hourly, applies to a type of meter or supply point, where the energy consumption is recorded for every half hour.
HV	High Voltage (11,000 Volts usually).
IDNO	Independent Distribution Network Operator, of some independent “Wires”.
kWh	kiloWatt-hour, unit of energy. Often loosely called “a Unit” – see below!
kW	kilowatt, unit of “active” power (i.e. the rate of energy consumption).
LF	Load Factor, ratio of average over peak rate of energy consumption.
LL	A short hand for Line Loss(es), which are due to Fraud, Theft and/or Waste.
LLF	Line Loss Factor of DNO, 3 rd element of the top line of MPAN, as [3 digits] gives the distribution losses & DUoS tariff associated with the supply point.
LLFs	A collective term, for a collection made up of more than one LLF value, etc.
LV	Low Voltage (e.g. 415 Volts 3 phase, or 230 Volts single phase).
Meter Reader	Reads the meter (see also DR), and is NOT the same as the Meter Operator.
MO	Meter Operator (who provides and / or commissions & maintains meters).
MPAN	Meter Point Administration Number. Supply point number [made up of two levels] that appears on an electricity bill (has a big “S” for Supply, on left).
MPAN Core	Bottom line of MPAN, starts with the DNO / PES / REC / MPAS ID [2 digits], & ends with the unique meter point [connection] number [11 digits].
MPAS	Meter Point Administration System in each DNO; this should hold a full record of ALL the connections to a DNO’s system. MPAS ID is [2 digits].
MTC	Meter Timeswitch Code, 2 nd element of the top line of MPAN, as [3 digits] gives the time pattern in which switchable loads (e.g. when E7 space and / or water heating are turned on and off).
MW	1,000 kW.
NHH	Non-half hourly, applies to meters or supply points that are not HH.
PES	Public Electricity Supplier – an old term. Was synonymous with REC.
Pisa	Famed for its Leaning Tower; part way through build, it was found to lean!
Profile	A pattern of consumption of electricity, by half hour, across a year.
Profile Class (PC)	The basis on which NHH metered consumption is converted to HH energy consumption (1 st element of the top line of MPAN) as [2 digits], for trading.
REC	Regional Electricity Company, the operator of the local distribution system – includes the MPAS team. Was synonymous with PES – an old term.
Unit	1 kWh of electricity, as measured by the meter(s) at the customer’s site.
UoS	Use of System Agreement (contract between electricity Supplier and DNO).

E&OE. NB: some of the jargon of the “trade” may have changed!

Cover Note and Attribution:

The cover of this Response – the “Creaky Cartoon” – is based on, and hereby attributed to, an idea by E L Kersten and / or Lucy Kellaway, or both, following her book review article (on “the most daring, funny and subversive management book ever written”) on page 11 of the “Financial Times” of Tuesday, 31 May, 2005.

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact.

Contents

	Page
Cover: Opinion etc “Health Warning” and the “Creaky Cartoon”	1
Essential Phrases, and Cartoon Cover Note and Attribution	2
Contents Page	3
Purpose of this Response	4
Parliamentary Support	4
Standing of the Response’s author	5
Introduction	5
The Seminar NOTES in detail – or not – on LLFs and Theft	6
History Elsewhere – Earlier Ofgem “work” on Theft	7
Thrust of the “Date Britain” approach utilising Patent GB2309086	8
Thrust of some DNOs Responses to the “Date Britain” approach	8
Ofgem’s Questions	9
This Responder’s Answers	10
Initial References and short Bibliography	11
A copy of the Responder’s Letter of 28 September 2004, titled: “ELEXON’s alleged False Accounting re Theft and/or Mistakes, and Security of Supply”	12

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact.

Purpose

The purpose of this Response to Ofgem Public Consultation Document reference code 135/05, titled “Structure of electricity distribution charges” and also “Consultation on the longer term charging framework”, issued in May 2005, is:

*** To promote the Sale of Patent GB2309086**, possibly to Government if nobody else will buy it, in order to discourage some present Data Handling Mediocrity by some DNO’s.

*** To encourage the suppression of Fraud, Theft and Waste** of Electricity – and other Energy – which is currently apparently covered up by the present Data Handling “Methodologies” used to determine LLFs, and also the GSPGCF, by encouraging the adoption of “substation monitoring”, especially enhanced using Patent GB2309086 – which will ensure a “firm” foundation for the calculation of LLFs, rather than the present Pisa type foundation currently used!

*** To seek further Parliamentary support** for the above aims.

*** To provide focused answers** on the questions raised by Ofgem on points of detail on LLFs in their Chapter 4 [paragraphs 4.14 through to 4.17, on pages 31 and 32], and their Appendix 2 [on their pages numbered 52 through to 54].

* To recognise that a version of the Pareto (was he “from” – or did he travel via – Pisa, perhaps?) 80:20 “rule” in relation to Consultation surveys about best practice etc, is that the “20%” minority may be the ones who have actually got it right!

*** In short, to ask DNOs to consider** and to arrange to stop their indolence, which seems to the author to be the shaky foundation which is leading on to a potential creaking asymmetric Tower of Pisa type calamity, with honest NHH customers being unduly discriminated against, almost in a “Monty Python” style!

Parliamentary Support

The author received the following personal message from his re-elected Member of Parliament during the recent General Election Campaign: “As you know, I have always supported you in your actions to try to draw attention to the problems with respect to the theft of electricity. I have written numerous letters on your behalf to this effect. It is an important issue and one I believe needs strong and firm action. For my part, I shall continue to do all I can.”

Further cross-party support will be sought soon; for example John Gummer MP recently indicated on the famous BBC Radio 4 Today Programme that energy conservation methods [which I believe includes the suppression of theft of electricity to a “non-material” level] should be used first, BEFORE any new nuclear power stations were to be built, e.g. to replace those at Sizewell when time expired.

This Response is therefore the first version of a Document that will be revised later.

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact.

Standing of the Response’s author

This is sketched out on page 2 of the copy of the “Customer Complaint” letter appended to this Response to Ofgem Consultation Document ref 135/05; although alluded to in the Ofgem Consultation Document, it is apparently very difficult to find this 2004 letter on the Elexon website.

The following additional information may be helpful: the Author has worked for about three decades in the Electricity Supply Industry; the three decades were: (1) the decade prior to privatisation, (2) the decade of privatisation, (3) the decade post privatisation. He is currently a student with the Institute of Risk Management.

Introduction

Due to other pressures, this Author does not currently have the time to discuss the potential – and fascinating – ramifications of the whole of the Ofgem Consultation Document, other than to say (1) that it is to be the basis of a longer term scheme, and (2) it would seem sensible to get the foundation methodologies of LLF determination fit for purpose by matching best achievable practice, in order that the longer term scheme does not founder, due to “soft foundations”, like a Tower of Pisa scenario!

Instead, this Responder wishes to focus on and address some of the issues raised – or not – at the Seminar [advertised in Ofgem Document 135/05 Appendix 1, pages 50 and 51] held on Tuesday 24 May, 2005, from which this Responder was excluded because Ofgem had allotted spaces “on a first come first served basis”, as well as five pages in the Ofgem Document (135/05).

Notes from the Seminar may be viewed on the Ofgem website: It is particularly astonishing to read that “One attendee noted the lack of representation of domestic customers (energywatch) at the workshop”. This is most disappointing, as energywatch is “the independent gas and electricity consumer watchdog set up to aid consumers with issues they may have with either the gas or electricity industry. Energywatch was set up by the Utilities Act (2000) and receive a grant from the Department of Trade and Industry that is derived from the licence fee that energy companies have to pay to the government and they are accountable to the DTI. They are completely separate from Ofgem, the gas and electricity regulator”.

Unless energywatch had actually requested a place(s) at the Seminar BUT were unfortunately – like this Responder – excluded, because Ofgem had allotted spaces “on a first come first served basis”, would it be fair to ask if energywatch (by their unfortunate apparent action here noted) is/are perhaps not fully acting as “wireswatch” in the interests of NHH (i.e. Domestic and Small Business etc) customers?

In view of the foregoing, this Responder thinks that we – who are the “little” customers – should be publicly told just exactly what energywatch’s intentions are, for the suppression of theft to non-material levels.

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact.

The Seminar NOTES in detail – or not – on LLFs and Theft

These Seminar Notes circulated by Ofgem state in part:

QUOTE

LLFs: should the LAF/LLF methodologies be published / common among DNOs / common for demand and generation? To what extent are site specific factors appropriate? Should all losses be included, or electrical losses only? What should the next steps on the LLF review be?

END QUOTE

... and ...

QUOTE

Line loss factors

- The group agreed that line loss factor methodologies should be published by the DNOs
- The methodologies should be as consistent as possible across DNOs
- Site specific factors are justifiable
- There is merit in certain types of non-technical losses being included in LLF
- The group supported the establishment of a working group to consider the issues further
- Issues for consideration by this group would include:
 - relationship between power factors and losses
 - impact on supplier billing systems
 - CVA/SVA.

Question session

An academic suggested that scaling could be rendered unnecessary if charges actually reflected the true marginal cost of a greater or lesser take to the supplier and the DNO, and that cost reflective charges should be capacity based. A DNO representative noted that capacity information is lacking for LV customers, and that attempts to bring in halfhourly-type charges for non half hourly metered sites had failed because all NHH usage was profiled. The academic suggested that these were not insurmountable obstacles, and that innovation in tariffs was long overdue, since the current structure had been essentially unchanged since the 1960s.

Another group member noted that the savings from this kind of major change would be minimal, but the costs of implementation would be huge. It was also noted that the role of suppliers in passing on messages created by new models would be vital to the success of any reforms.

Ofgem noted that there were a number of themes emerging from the presentations and discussions: the need for more transparency on the charging models, and more simplicity and commonality in tariff structures.

Next steps

Ofgem presented some thoughts on the timetable for the development of the longer term arrangements:

- 20 June 2005: responses to the consultation received.
- 2005 – development work on long term charging models:
 - Building on Ofgem conclusions on high level framework (Summer 2005),
 - Led by DNOs, informed by industry consultation and academic work, supported by Ofgem.
- 2006/07 – Implementation of longer term arrangements.

END QUOTE

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact. It is particularly astonishing that none of the above apparently explicitly mentions the word theft anywhere. This is sadly reminiscent of ELEXON’s attitude, previously identified in the Author’s letter of 28 September 2004, appended to this Document for easy reference.

The drift of the “discussion” at the Seminar seems to have been that “There is merit in certain types of non-technical losses being included in LLF”, which of course may mean that – **if theft and maladministration are covered up – then there is allegedly “merit”!**

Surely this is straight out of a potential new “Monty Python” style sketch?

History Elsewhere – Earlier Ofgem “work” on Theft

The Ofgem “Theft of Electricity and Gas – Next Steps” report (dated 17 January 2005) [available from http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/9970_next_steps.pdf] shows that just imposing a Licence Condition (LC) on Suppliers won’t work. It’s just wishful thinking, and IMHO “energywatch” should be ashamed of themselves for apparently allowing themselves into being deluded into thinking that it will! What is clear from the Appendices of the January 2005 report is that some suppliers “WERE NOT ABLE TO REPORT ANY FIGURES AT ALL” because it states

QUOTE

1.6 Overall, the quality of the information returned by recipients was poor and, in many cases, inconsistent. Some respondents were unable to provide any information in certain areas; others submitted figures that led Ofgem to believe that a consistent interpretation had not been applied between the two data requests. For some data items, the number of responses was very low, leading to a possible skewing of the figures. There was considerable variation in the information presented by different respondents which, as explained at the seminar, made it difficult to identify strong trends in order to determine the effectiveness of the current arrangements.

1.7 The completeness of data reported by suppliers in particular was exceptionally poor in many cases. Some large suppliers were not able to report any figures at all. Ofgem is very concerned that industry participants have not been able to demonstrate that they are collecting and monitoring data in respect of theft. Ofgem would expect that licences should be monitoring this data to allow them to manage their regulatory obligations. ...

ENDQUOTE.

So the above means, in the opinion of the Responder, that the onus should be sensibly swung back onto DNOs, as part of the longer-term arrangement(s) envisaged by Ofgem ref 135/05. After all, it is from the systems of the DNOs that electricity is stolen! Consequently, the “local monopoly” DNOs are best placed to manage the risk of theft (and waste etc). It seems particularly unjustifiable that the present “methodology” effectively transfers the risk of theft onto unprotected domestic customers, who are not able to manage this risk of theft (and waste etc).

Whilst the rationale of energywatch may be that they do not wish to see honest customers being falsely accused of theft, with the workload of concomitant justified complaints, what their actions show that they fail to appreciate is that honest customers actually want to have dishonest ones caught, and consequently would

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact. expect that there should be systems put in place to increase the certainty of detection. Of course subsequent investigatory procedures should be in accordance with PACE, and should be handled with appropriate sensitivity, but they should not be shirked. This is especially so, if it avoids the need for building basically unnecessary power stations, and thus avoids unjustified emissions to the atmosphere, with concomitant climate change!

Thrust of the “Date Britain” approach utilising Patent GB2309086

Whilst this has been set out elsewhere, and will be included in a revised version of this Response, this approach believes that:

- * A set of synchronised readings for NHH customers served by a single GSP would be illuminating!
- * An ingenious way for achieving this would be to use otherwise unwanted E7 meters.
- * When combined with “substation monitoring”, this could enable a finite element analytical approach to identify, examine and probably reduce Line Losses, which are of course due to Fraud, Theft, and Waste; some of the waste is due to the laws of Physics and their application to the materials used by DNOs with their current technologies.

Thrust of some DNOs Responses to the “Date Britain” approach

The Ofgem website shows the following in part:

- * A letter from Rob McDonald, Director of Regulation, Perth, dated 23 February 2005, which shows the following in part:

QUOTE

Finally, we are concerned that Ofgem are considering, as a separate project, the appropriateness of the current methodology for measuring the volume of electricity distributed and Line Loss Factors during 2005. Once again, we have seen no evidence that there is a requirement for such a review. We would ask that Ofgem provide a clear justification for undertaking such work before expending time and effort on it.

ENDQUOTE

... and also ...

- * A letter from Jeremy Blackford, Regulation Manager, SP Transmission and Distribution, dated 28 February 2005, which shows the following in part:

QUOTE

As regards the proposed theft obligations being considered, it is difficult to see the benefits that substation monitoring could bring. A DNO only receives metering data via the supercustomer process – i.e. not from individual customers, and the interaction between a DNO and a number of suppliers would make any monitoring very complex.

ENDQUOTE

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact.

What the above distinguished gentlemen appear to this Responder to be attempting to assert is that “We wish to preserve our anomalies.”

In addition, they appear to this Responder to be attempting to assert that “It is better to have Data Handling MEDIOCRITY, rather than to address the problems of Fraud, Theft and some of the Waste, even if that allowed the electricity supply industry to push out fewer harmful emissions into the atmosphere.”

My Response is essentially this: “Have you seen the Leaning Tower of Pisa?”

If not, just look at the cover of this Response, for a start, and please reconsider.

Ofgem’s Questions

These are contained in the following text copied below for easy reference:

Ofgem notes that the distribution licence requires DNOs to publish line loss factors in their statement of use of system charges (SLC 4A(2)b). In addition, this statement has to be prepared in accordance with the use of system charging methodology (SLC 4A(1)b). The use of system methodology has to be prepared in line with the charging principles set out in the licence. These are cost reflectivity, the facilitation of competition, taking account of changes in the DNO’s business and ensuring the discharge of licence obligations:

. Q1: Should the methodology for calculating loss factors be included in the use of system charging methodology published by each DNO and be subject to the governance of the charging methodologies?

DNOs currently adopt different methods for calculating loss factors. These vary in sophistication. Most calculate site specific factors for certain customers, generally at EHV and for large or unusual connections. Generic factors at other voltage levels are based on different allocation methodologies:

. Q2: Should a consistent methodology be adopted for the calculation of losses by all DNOs?

. Q3: (a) Can a non-site specific approach be justified? (b) Which customers should have site specific loss factors?

. Q4: Should loss factors be determined in the same way for distributed generation as for demand?

Losses definition: Some of the DNOs base their loss factors on technical losses only whilst other DNOs include all categories of losses in their calculation, including theft:

. Q5: Should loss factors include only electrical losses or should they include all categories of losses?

IDNO requirement to submit LLFs:

. Q6: Should IDNOs calculate losses on the IDNO system in the same manner as the DNOs?

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact. Ofgem welcomes comments on any other issues relating to losses:

. Q7: Are there any other issues that need considering in the review of LLFs?

This Responder’s Answers

A1: Yes and Yes, AND it should also include “substation monitoring” enhanced using the “Date Britain” approach utilising Patent GB2309086, for change to clean up the £100m or more a year Theft etc scandal, by introducing – in the spirit of the famous “Butler Report” – new validation processes.

A2: Yes; however if there were to be any material departures from the “consistent methodology”, then these should be fully and publicly reported by these local distribution monopolies.

A3: (a) Possibly, using a cost benefit analysis, subject to a sensible materiality test. (b) Those outliers that justifiably have material losses.

A4: Why not? Isn’t the only REAL purpose of distributed generation to save the planet by reducing emission, and concomitant climate change?

A5: Loss Factors should not include material Theft. Loss Factors should not include material Fraud. These items should be “designed out” by adopting a sensible methodology, such as that proposed by the Respondent, i.e. using the “Date Britain” approach utilising Patent GB2309086

A6: Why not?

A7: There need to be a serious review of just why there is an apparent failure of communication within Ofgem, which seems to have resulted in a lack of linkage with the “Theft of Electricity and Gas” Workstream”. May I suggest that this be included in the “Project Paperless” Procedural Review, please? May I also suggest that the intelligent reader looks at “Utility Week” of Friday 17 June, 2005, page 31 “Power Company busts 47 cannabis factories” at addresses “raided in London, the South East, Merseyside, Nottingham, and West Yorkshire” where “electricity was being stolen as a result of growers bypassing the meter.” Also, in the same “Utility Week” issue, Ofgem CEO Alistair Buchanan was quoted as saying, “The key is we understand we are not a policymaker” which is why this Responder is seeking Parliamentary support.

Over to you!

For the avoidance of doubt, each statement in this Response – to Ofgem’s Public Consultation Document reference 135/05 – is either an expression of opinion or a suggestion of opinion either by Box Ten Ltd, or by Don Stickland, or both, unless it can be shown to be a statement of fact.

Initial References and short Bibliography

AIRMIC, ALARM, IRM Standard (2002) *A risk management standard*. London: AIRMIC, ALARM, IRM.

CIPFA (2004) *Risk Management Guidance Notes, Number two – Risk Identification*, Croydon: The Institute of Public Finance Ltd

Dickson, G. (2003) *Risk Analysis*. 3rd edition, London: Witherby & Co Ltd.

Kellaway, L. (2005) *Financial Times*, page 11, 31 May 2005, London.

There is now attached a copy of a “Customer Complaint” letter [which appears to be one of those mentioned in the Ofgem Consultation Document ref 135/05] in Response to the 2004 electricity “wholesale market” Balancing and Settlement Code (BSC) Review, that is in the opinion of this Responder, apparently very difficult indeed to find on the Elexon website:

Box Ten Ltd, P O Box 1010, Nottingham, NG5 8TF, GB

Our ref. Theft & alleged False Accounting-DS 2004-09-28.rtf
Your ref. ND11-08-04/HL

28 September 2004

Nicholas Durlacher
Chairman of the BSC Panel and ELEXON Ltd
4th Floor, 350 Euston Road
London NW1 3AW

Dear Chairman

ELEXON's alleged False Accounting re Theft and/or Mistakes, and Security of Supply

Many thanks for your letter of 11 August, text data enclosed, in reference to my email of 9 August; for the avoidance of doubt, all statements in this Response are either expressions of opinion or suggestions of opinion either by Box Ten Ltd or by me, or both, unless they can be shown to be statements of fact. (My BSC SVA 04-05 Review Response is also attached.)

First may I say that I'm very disappointed that I do not see the word "Theft" *anywhere* in your letter, even though this topic was obviously central to the documents that I had sent you, e.g. reference (2) (c). Their title was "Elexon, Sherlock Holmes, and the Theft of millions of pounds of Electricity each year from the Settlement System".

In my opinion, this lack of any reference to "Theft and/or Mistakes from or within Balancing and Settlement" is indicative of "unhelpfulness" at the very least. John Kay [who recently wrote 'Galbraith gave to the English language the phrase "the conventional wisdom" to describe opinions that, while not necessarily well founded, are so widely held among the rich and influential that only the rash and foolish will endanger their careers by dissenting from them'] might even join me in regarding it as an abrogation of responsibility to the embedded market, etc, by following *the conventional wisdom* [which I intend to explain later]. So I'm copying this to him, requesting his assistance to help counter an apparent market abuse.

Max Clifford [who I understand is a tabloid story broker and media adviser] would, I'm sure, join you in first wanting to have proof of the "story" of this alleged Theft of million of pounds of electricity, before encouraging Readers to canvass Energywatch URGENTLY to submit a Balancing and Settlement Code (BSC) Modification Proposal for change to clean up this scandal, by introducing – in the spirit of the "Butler Report" – new validation processes.

People know there are inherent difficulties in identifying and quantifying the theft of electricity, because electricity is invisible and cannot easily be stored, but I will do my best. Basically a meter can measure the honest use of electricity if there is one correctly connected and if its readings are correctly processed. Theft (illegal abstraction) takes place when the necessary meter, etcetera, is "bypassed". It is not the purpose of this open Response to explain how to steal electricity.

I've been asked, "How Much Money is Stolen?" A respected source of quantified information on electricity theft (illegal abstraction) is the Ofgem website; if you use the Internet to find www.ofgem.gov.uk and then enter the word "theft" in the search box, you will find evidence:

* Ofgem's Consultation document [ref 85/04] of 20/04/2004, [Theft of Electricity and Gas](#), which shows some estimates of the retail value of units stolen each and every year:

(1) Ofgem's own work, page 22, paragraph 4.26, a range between 0.2% and 0.6% of distributed units stolen each year, i.e. valued from £44 million to £132 million every year, and

(2) UKRPA's (UK Revenue Protection Association - the "few fighters" who need counter-measures to target theft etc) work, page 23, paragraph 4.27, a range from 1.0% to 1.5% of distributed units stolen each year, i.e. valued from £220 million to £330 million every year.

* The June 2004 response of Terry Keenan BSc., MSc., C.Eng., FIEE to Ofgem's document [ref 85/04], where:

(1) He indicated from *real* experience that: "During the 1980's some UK electricity companies were losing 2.5% of their total sales because of Illegal Abstraction." And that ...

(2) "The worst hit areas were London, Merseyside and Glasgow, with the Northeast suffering the least theft losses. Data concerning losses ... was underpinned by a number substation metering exercises [*which apparently are not being continued today*] whereby meters on particular feeder cables in substations were used to compare the summated meter readings from the properties supplied by those cables. In some areas as much as 75% of the electricity being metered in substations was being stolen."

(3) He added, "... proposed substation reinforcements did not have to take place, and some substations were decommissioned with the hv [High Voltage] equipment being used elsewhere".

(4) He commented on today's ELEXON settlement operations [done under contract] as follows: "The 'smearing' effect [*which Ofgem describes in ref 85/04, paragraph 5.4, fourth sentence, as "the amendment to settlement charges"*] means that individual suppliers do not incur the whole cost of theft by any of their individual customers. Also, since they only pay for individual theft losses once an estimate of unrecorded units has been produced it is difficult to see why they should do an estimate at all. DNOs (Distribution Network Operators) on the other hand are not able to recover DUOS (Distribution Use of System) charges if units are not metered; also, they may have to pay for system reinforcement in areas of high theft. If the 'smearing' effect [*of ELEXON settlement operations*] did not exist both suppliers and DNOs would have an incentive to work together to reduce theft."

(5) His conclusions include: "6. The 'smearing' effect is nonsense." and "10. Customers already pay somewhere between £300 million and £400 million [every year] for theft. Any costs incurred to reduce theft should be self-financing and should not fall on customers."

* Reference to the Price Commission Report [for example in our (i.e. of Don Stickland and/or Box Ten Ltd.) June 2004 Response, which includes a reference to Patent GB2309086 'Utility Metering Arrangement', which essentially allows a meter reading to be "frozen" for a while at the end date of an Accounting Period, as part of a proposed counter-measure against theft] of 4 July 1979, HC 132, where it was reported that:

(1) Some Area Boards indicated that theft losses "... were unlikely to exceed 1% of sales", but for which no evidence was produced, unfortunately.

(2) The Price Commission noted that theft was of increasing concern [*presumably as it was growing with time*] particularly in Metropolitan areas.

Before we use Scientific Intelligence – following the example set by R.V. Jones – to interpret the above evidence, it may be helpful to set out some of the standing of the author of this Response. He studied Physics (including Practical Physics) at Oxford University, gaining an Honours degree. He has worked as an engineer providing measurement services to oil companies. He also graduated in Economics, and is a professionally qualified accountant.

Equally, Box Ten Ltd's policy is to keep staff to the smallest possible limits consistent with Risk Management, because the larger the field one person can cover, the more chance there is of those fortunate correlations which only occur when one brain and one memory can connect two or more remotely gathered facts. This enables us to speak with that certainty which arises only from intimate contact with the facts.

Some Conclusions of applying Scientific Intelligence to the above evidence:

(1) Theft of electricity might be in the range of 0.2% to 2.5%, i.e. in a range from £44 million pounds every year, through to £400 million pounds or more, each and every year.

(2) There is a wide range of uncertainty about the quantification of theft.

(3) There is a clear need to have validation processes put in place to verify theft amounts, because the current uncertainty suggests that the current validation processes are inadequate.

(4) The amount of alleged theft of electricity may be growing with time.

(5) Surprisingly, counter-measures against theft seem to have diminished of recent years, e.g. substation metering exercises appear to have been abandoned; furthermore, there was a verbal report at an Ofgem Workshop indicating that DNOs no longer record energy consumption meter readings made on 33kV Primary Substation feeders, again losing vital sources of data for counter-measures against theft, etc. [Indeed Cecil Parkinson was apparently surprised at Privatisation “cost savings” – BUT the apparent stripping out of metering capability suggests that these may have gone too far.]

(6) If theft is detected by using sensible counter-measures, then the amount of capital investment necessary in distribution systems may be reduced, in order to maintain a given level of Security of Supply (because future proposed substation reinforcements might not have to take place).

(7) Equally, if theft is detected by using sensible counter-measures, then the amount of capital investment necessary for sufficient electric power generation station availability – and plant margin – might be reduced, in order to maintain a given level of Security of Supply.

(8) Conversely, if theft is NOT detected by using sensible counter-measures, the “Lights may go out” if plant margin is too tight, with concomitant political risk – e.g. at Election time.

So the fight against theft of electricity would seem to be well worth fighting, particularly as R.V. Jones reminded us: “A similar disregard for Scientific Intelligence exists now in England to that which existed in Athens [during the Peloponnesian War]: Pericles, in a classic exposition of Athenian policy, stated: ‘Our city is thrown open to the world, and we never expel a foreigner or prevent him from seeing or learning anything of which the secret if revealed to an enemy might profit him. We rely not upon management or trickery, but upon our own hearts and hands.’ (Thucydides. II, 39.) While it may be claimed that we do not completely emulate this abandon, ... the parallel [is] sensibly true: Athens lost the war.”

Or, to put it another way, inaction is not an option – contrary to your last paragraph’s flavour.

Our strategy is that (1) we take issue with the present situation that “no modification proposals that relate to the subject of” our earlier communication of 9 August have been made, (2) our patience will not be exhausted in carefully explaining to you and other decision makers the argument for improved counter-measures against theft of electricity, etc, & (3) we then invite you to agree with us, and to arrange for the necessary modification proposals etc to be enacted. (4) Escalation would follow, were there to be no take up of our invitation.

As ever, the rationale behind the Box Ten Ltd argument is:

- * If you can measure theft, then you can manage it down better.
- * If you can manage down theft, then you can perform better.
- * If you can perform better, then you can deliver better value to customers.

So just what is theft of electricity? And how does it relate – if at all – to the other losses of energy that occur as a result of the laws of Physics on the journey of electrical energy through Distribution Networks, from the National Grid through to customers’ terminals?

Let us do a thought experiment: Ofgem (ref 85/04 para 5.3) tell us that “in 2002/03, losses averaged approximately 6.2% of units exported from distribution networks.” Ofgem also indicate that part of these losses may be theft. Let us suppose that the theft amounts to the 0.2% figure quoted above, and that the losses not due to theft are, on average, 6%.

What does the 6% losses mean? Easy: the Answer is that if 100 energy units enter the distribution system, then 94 energy units come out as measured exports paid for by honest customers, if there is no theft.

Or that if 1,000 energy units enter the distribution system, then 940 energy units come out as measured exports paid for by honest customers, if there is no theft.

Let us suppose that there are lots of units entering the distribution system, some of which are consumed through meters by honest customers, who for the sake of illustration just happen to have average losses. If such an honest average customer were to have the energy units consumption metered as 940 in a time period, then we could conclude that this customer caused a contribution of 1,000 energy units to enter the distribution system, in the same time period. In other words, the multiplier to convert the export volume measured at the meter point into a deemed volume to account for distribution losses between the exit point and the Grid Supply Point (a connection point between the transmission and the distribution system) would be 1000/940, or a “factor” of about 1.0638. [Cross check: 1.0638 x 940 = 999.97].

This factor [1.0638 in the above example] is known in the jargon as a “Line Loss Factor”. It is important, because – in a perfect world if there were no theft – it allows the effect of customers consumptions as measured by meters (which may be view by customers on their sites if they wish to) to be scaled up so that their effect at the level of electricity power generation may be assessed.

You’re with me so far, aren’t you? Now suppose we have 10 average honest customers, each consuming 940 units. They would cause the generators to burn sufficient fuel (e.g. gas) to produce 10 x 1,000 = 10,000 energy units, provided via the Transmission system; its “settlement system” would allocate the costs of these units to the 10 customers. No problem.

Now let us suppose that there is an eleventh ‘customer’, who manages to take a supply of electricity without it being metered. In the “thought experiment”, the generators would now have to burn sufficient fuel (e.g. gas) to produce 11 x 1,000 = 11,000 energy units, but the honest metered customers would expect to pay for only 10 x 1,000 = 10,000 energy units, leaving a “Gap” – in Transmission etc – of 1,000 energy units to be funded by “someone”.

If you’re an honest customer, you’d surely expect the big GB electricity Transmission System (and its Licence) to be able – in practice – to track down the thief, or thieves, and obtain payment so that “settlement” would be able to balance without a gap, wouldn’t you? OK?

So now let us analyse what Ofgem (in Doc ref 85/04 page 24 onwards) has reported about actual current “settlement” practice by ELEXON, etc:

No.	Electricity Regulator Ofgem’s words	Customer’s Opinion, Comments, etc
5.2	In the electricity market, supply companies contract bilaterally with generators to meet their customers’ electricity demand. The settlement bodies ensure that suppliers settle any imbalances between their customers’ metered demand and their notified contract volumes. To facilitate this, suppliers are required to provide meter readings to the settlement bodies to identify their settlement charges. In the NHH market, demand profiles are applied to these meter readings to provide half-hour consumption estimates for each meter point. In the HH market, actual data is provided for each half-hour period.	Despite the language, this is clear enough if we remember the above “thought experiment”, and that a fair “settlement system” should properly allocate the energy costs to customers. Ofgem say in a footnote here: “ELEXON procures, manages and operates services and systems which enable the balancing and imbalance settlement of the wholesale electricity market and retail competition in electricity supply in England and Wales.”
5.3 pt 1	For settlement purposes, a customer’s half hourly consumption is uplifted to account for distribution losses.	This seems fair enough, BUT it raises real questions: What is the correct uplift figure, if you only meter at the customer’s site? It suggests that a

No.	Electricity Regulator Ofgem's words	Customer's Opinion, Comments, etc
		guess is made for future losses!
5.3 pt 2	The DNO allocates a Line Loss Factor (LLF) to each metering point to allow this calculation to be made.	This guess is made by the DNO, who does NOT trade energy! Apparently ELEXON do not carry out after the event "Validation Procedures" either – which was a criticism made in the Butler Report about the need to cross-check assumptions made with poor data!
5.3 pt 3	In 2002/03, losses averaged approximately 6.2% of units exported from distribution networks.	This confirms that looking at losses over an Accounting Period of 1 year is a sensible thing to do, in line with Patent GB2309086 and its "Date Britain" application.
5.3 pt 4	Part of the line loss factor associated with each meter point may be an adjustment to account for the expected amount of electricity that is illegally taken by customers on the network and not metered.	This is worrying, because it suggests that dishonesty is "expected".
5.3 pt 5	Suppliers will therefore be required to pay an element in their settlement charges to account for the expected level of theft across distribution networks.	More worrying still, honest Suppliers - and their honest customers - will be required to pay an element in their charges to account for the expected level of theft by others! This is forced onto honest customers by ELEXON, who apparently are prosecutor, judge and jury, and debt collector, effectively accusing all honest customers of theft, by virtue of "ELEXON ... services and systems which enable the balancing and imbalance settlement of ... electricity supply in England and Wales."
5.4 pt 1	If there is a further difference in the total value of recorded consumption (incorporating line loss adjustments) compared to the electricity imported into the network and from distributed generation, the settlement bodies adjust all recorded NHH units in order that the aggregate adjusted volume of exports matches the total imports.	So if the guess of theft is too low, this deficiency is forced onto honest NHH customers (Non Half Hourly customers, i.e. homes and small businesses) by ELEXON, who apparently are prosecutor, judge and jury, and debt collector, effectively accusing all honest customers of theft, even if the theft (etc) is done by HH (Half Hourly) sites!
5.4 pt 2	[Ofgem say in a footnote here: "It is assumed that the frequency of metering on HH (Half Hourly) sites will ensure that meter read information is accurate and therefore should not be subject to GSP Group Correction Factor"]	There are many potential fallacies behind this assumption!
5.4 pt 3	This adjustment is known as the GSP Group Correction Factor and may lead to an increase or decrease in a supplier's settlement charges.	Basically this "GSP Group Correction Factor" is a GAP COVER UP!
5.4 pt 4	The amendment to settlement charges is smeared across all NHH suppliers depending on the number of recorded units in their portfolio.	The amendment to settlement charges is smeared across all NHH suppliers, in order to COVER UP the GAP in "settlement", and to consequently destroy any incentive to seek out theft, as evidenced by the apparent lack of after the event "Validation Procedures"! Patent GB2309086 aims to provide

No.	Electricity Regulator Ofgem's words	Customer's Opinion, Comments, etc
		suitable counter-measures to theft, etc, and is strongly recommended.
5.4 pt 5	These suppliers will therefore bear a further smeared cost if there are unforeseen losses owing to the unanticipated theft of electricity.	And the Suppliers will inevitably pass on these costs to honest customers, who are all apparently arbitrarily accused of theft, with no evidence being presented!
5.5	Where an assessment of consumption illegally taken by a customer is made by the RP Service and passed to the DC, they are obliged to enter this data into the settlement process. The supplier will then be liable for the specific settlement charge associated with this consumption and the GSP Group Correction Factor will be adjusted for all suppliers in this GSP Group to account for this identified consumption data. However, as noted earlier, the supplier may not be compelled to enter revised data into settlement if they receive this information directly from the RP Service.	This suggests a real muddle. Sadly, although the RP (Revenue Protection) Service, and the DC (Data Collector) and/or meter reader, do good work, this is inevitably patchy because of the apparent lack of after the event "Validation Procedures". If we truly want things to improve, we can't stay quiet on the grounds of concern solely about consequences for ourselves.

SUM UP: LLFs (Line Loss Factors) produce a GAP, which is then covered up by apparently accusing ALL honest customers of theft! Q: Is this cover up justified in whole, in part, or at all? Q: Aren't things made worse by covering up the scale of theft, by not recording theft amounts separately? Q: Do we have False Accounting?

The astute Reader will note that what is being challenged here is "the conventional wisdom", about which John Kay and JK Galbraith spoke. The astute Reader will also ask "What about materiality?", and may be surprised to learn that ELEXON minutes apparently indicate that the Ofgem Representative [in BSC Meeting held 12 February 2004 Minutes 72] "noted the impact of altering the materiality threshold on the cost of the Audit" apparently suggesting that "If the threshold was raised there was potentially less work". The obvious danger of raising the Settlement Audit materiality threshold is that theft is more likely to be covered up!

Let us try to clarify some of the jargon – or language – of theft, before we consider these questions (of alleged False Accounting by ELEXON, etc, see Ofgem footnote to 5.2) further.

The present jargon of energy losses, mistakes and theft etc, seems to us to be unhelpful, and contrary to the spirit of the Campaign for Plain English, as it starts off by considering:

- * Technical Losses, which apparently may not include theft, and then
- * Non-Technical Losses, which apparently may include theft!

At least Ofgem defined energy theft in their Consultation document [of 20/04/2004, ref 85/04, para 2.1] as "a generic term used to describe a supply of gas or electricity taken illegally through meter tampering, restoration of supply without consent and in cases where a supply is taken on a deemed contract by customers who are not the lawful occupants of premises and do not intend to pay for it" and excluded the wider issue of customers' failure to pay for electricity or gas obtained by legitimate means. We believe this is best summed up as "Dishonest Theft". And this helps us clarify the language of energy losses and theft etc, by considering likely "drivers", or root causes:

- * Honest Losses, which do not include dishonest theft of energy, and then
- * Dishonest Losses, which do include dishonest theft of energy.

We are also concerned about 'tempo'. A degree of passivity – or maladministration – seems to linger this topic currently, not least because of the apparent lack of after the event "Validation Procedures". This is compounded by the Ofgem statement that "Suppliers will

therefore be required to pay an element in their settlement charges to account for the expected level of theft across distribution networks”, and the associated apparent cynicism.

What could be some of the constituents of losses due to maladministration? Here are some:

- * Non-detected meter errors, such as a failed meter (e.g. “stuck”), as compared with detected meter errors.
- * Non-detected meter record errors, such as a 5-register meter on site being recorded as a 4-register meter in central records, as compared with detected meter record errors.
- * Non-detected meter connection record errors, such as a CT (Current Transformer) on site being mis-recorded in central records, as compared with detected meter connection errors.
- * Non-detected meter major record errors, such as meter on site not being recorded at all in central records, as compared with detected meter major record errors.
- * Non detected meter reading errors, such as meter reading(s) on site not being recorded at all - but being made up in a café “to get out of the rain”, as compared with detected meter reading errors and their concomitant corrections.
- * Non-detected errors due to extra connections to a Distribution Network Operators electricity distribution system not being recorded at all in central records, as compared with detected extra connections.
- * Non-detected errors due to connections from a Distribution Network Operators electricity distribution system to an Independent Distribution Network Operators electricity distribution system not being metered at all, as compared with being metered.
- * Non-detected errors due to connections to Un Metered Supplies (UMS), such as street lamps, from a Distribution Network Operators electricity distribution system not being recorded at all in central records, as compared with detected UMS record errors.
- * Non-detected errors due to the assumed consumptions of Un Metered Supplies (UMS), such as street lamps, being incorrectly assessed in central records, as compared with detected UMS consumption(s) assessment errors.

These above examples indicate that there may be a time aspect that should be applied to the above passivity – or maladministration – that an informed customer should at least tell an MP about as out of order, should other approaches seem to be greeted with a yawn.

Whilst short-term maladministration is understandable, for example over a Half Hour interval, long-term maladministration is most certainly NOT at all acceptable, for example over a period of a year. The Box Analysis 2 x 2 TABLE below summarises the above drivers (or root causes) using a “New” jargon, in order to help focus corrective actions:

“New” jargon:	Active Matters	Passive Mistakes or Indolence
Honest Losses (these will need normal Risk Management Risk Reporting)	Losses of energy that occur as a result of the laws of Physics acting on an “authorised” journey of electrical energy through a Distribution Network.	Losses of energy that occur as a result of short-term maladministration. If there are counter measures in place – e.g. as after the event “Validation Procedures” – then these may be justifiably be “covered over” by using a “GSP Group Correction Factor” feature as a short-term GAP COVER UP.
Dishonest Losses (these will need special Risk Management Risk Treatment)	Dishonest Theft, which can only be detected – and corrected for – completely by counter-measures such as after the event “Validation Procedures”.	Losses of energy that occur as a result of long-term maladministration, which should have been detected – and corrected – by an “Honest” settlement system. Using a “GSP Group Correction Factor” feature as a GAP COVER UP would be dishonest, especially if it exceeds Audit materiality.

The above 2 x 2 TABLE is based on the ABC principles of Activity Based Costing, and can be interpreted (and this comment is partly to help those Readers should this key TABLE become corrupted in transmission, which is why this text has been also sent as an rtf attachment) as showing a continuum:

- * From the NW (North West) box of Losses of energy that occur as a result of the laws of Physics acting on an “authorised” journey of electrical energy through a Distribution Network;
- * Through the NE (North East) box of Losses due to short-term maladministration;
- * Through the SE (South East) box of Losses due to long-term maladministration;
- * To the SW (South West) box of Losses due to Dishonest Theft.

It is the thesis of this Document that long-term maladministration – if it exceeds an acceptable Audit materiality – is as unacceptable as Dishonest Theft. Theft is, of course, a criminal offence subject to the punishment of imprisonment, in line with the Theft Act(s).

It is also the thesis of this Document that any gaps between (a) what the Transmission System – and its associated Settlement System – should properly charge customers (via their Suppliers) for, i.e. due to no longer automatically accusing all honest customers of theft, etc, and (b) what the Transmission System has to provide, should be minimised by adopting a solution with sensible counter-measures, including after the event “Validation Procedures”.

As such, this solution is clearly a matter to be covered by the Transmission Licence, and associated documents such as Settlement and supporting activities of metering (and getting a grip on losses), because the driver of this solution is integrity of the Transmission System, and Security of supply, which appears to us to be key Objective (a) of, for instance, the Balancing and Settlement Code, etc, which we understand, refers to “... transmission system security and availability and quality of service ...”. This is because we understand that the GB electricity plant etc margin may be so tight in the near future that the “lights may go out” due to the effects of theft being the “last straw that breaks the camel’s back”.

We are of course delighted that the BSC SVA Review, 7 September 2004, prompted by the qualification of the most recent BSC Audit, in “Strategy 2” Section 6.3.1, for example, calls for innovation. This is because, paradoxically, your letter of 11 August appears to us to fail to encourage our proposals for innovation, via Patent GB 2309086 etc; further, it appears to us to discourage the cost saving feature of selling the electricity application of this Patent to just one centre, compared with the extra transactional costs of selling to a number of players!

Question: Would you agree that you have given us the unfortunate impression of suffering from the “Not Invented Here” syndrome? If not, could you please reconsider our proposals?

Incidentally, it is also the thesis of this Document that the BSC SVA Review is – despite its ambiguities a sort of “cry for help” on behalf of the whole GB electricity industry including Suppliers, who seem to us to be overwhelmed by the consequences of either theft and / or mistakes. Hence our proposed solutions of cross-checking key aspects using after the event counter-measures and Butler inspired “Validation Procedures”.

This Document proposes, again, that consideration be given for the purchase of Patent GB 2309086, titled “Utility metering Arrangement”, and its “Date Britain” application, on behalf of the holder of the Transmission Licence, in order to address the current short-comings of Performance compared with the Objectives set out in the Transmission Licence.

Briefly, this Patent proposes “date marking” the continuous recording on an electricity meter register, by causing registration of energy usage to be switched from one register to another on a precise date. And:

* If this switching were to take place once a year, at the end of each accounting period, and if a meter reading were made in the intervening period, then a precise “Annual Advance” could be determined, without any of the alleged errors arising from “profiling”. Consequently, we would have an after the event “Validation Procedure” for the NHH Profiling mechanism.

* If we additionally were to have a DNO’s record of each MPAN (Meter Point Administration Point) by finite feeder element – and preferably by feeder phase in the longer term – we

would be able to compare the electricity energy inputs and outputs, and so determine those feeders “by exception” which appear to show unexplained electricity losses, due either to theft or to maladministration. This after the event “Validation Procedure” counter-measure – of Distribution Loss Factors – could be used to focus the work of theft and error investigators, who are known in the jargon as the “Revenue Protection” activity. The DNOs work could be enhanced by recent developments at Ordnance Survey – as reported in Utility Week of 13 August page 22 – which allows the geographical location of streetworks [and also MPANs] to “be identified within one metre”, or about 3 feet.

The BSC Review section 4.1.4, 1st bullet mark, now seems to us to be a bit pathetic when it states: “The accuracy of Imbalance Settlement is influenced by a number of factors, including: The intrinsic accuracy of components of settlement, such as the accuracy of profiling (thought to be in the range of perhaps 0.5% to 2% over a year, although there is currently no established single criteria by which to judge the accuracy of profiling), the accuracy of metering (around 2% for individual meters), and the accuracy of Distribution Loss Factors. The last of these are a “given” for Imbalance Settlement, since they are provided by Distribution System Operators; Loss Factors differ noticeably between distribution networks, and it could be that the intrinsic uncertainty in their value is significant in comparison with other errors in Imbalance Settlement.” This is because

- * We have shown how to use Patent GB 2309086 to judge the accuracy of profiling, and
- * We have shown how to use Patent GB 2309086 to challenge the accuracy of Distribution Loss Factors, as provided by the monopoly DNOs (who we now gather do not trade energy).

We believe that both of the above uses of Patent GB 2309086 would provide an enhanced role, or roles, for the BSC Technical Assurance Agent (TAA).

The need for an enhanced TAA role, or roles, to challenge the accuracy of Distribution Loss Factors (LLFs), as provided by the monopoly DNOs, appears to us to be quite clear from the Minutes of SVG Meeting Number 40, section 3.3, because:

- * At 3.3.2, “ELEXON confirmed that” Line Loss Factor (LLF) validation “was a rudimentary validation process which primarily seeks to identify input [keying] errors”. So “Ofgem agreed to discuss calculation of LLFs and Ofgem’s intended reviews with ELEXON”. And

- * At 3.3.3, “The SVG asked ELEXON to investigate the problems associated with controls and to see if these controls were correct. ELEXON confirmed that it would review governance to see if the processes were correct. ELEXON also confirmed that distribution businesses were obliged to provide calculate LLFs and that ELEXON had no interest to change such an obligation. However, ELEXON is interested in finding out about how the calculations are run in order to advise the Panel, who approves them. ELEXON also wants to be more confident in being able to understand and explain deviations. The SVG requested that the Ofgem Panel representative provide an update at the panel.” We are obviously surprised at the apparent reported lack of interest by ELEXON in getting a grip of LLFs, by failing to be seen to be challenging them! NB there’s no Energywatch rep on SVG.

If there were an Energywatch representative on SVG, they might have asked just why the GSP GCF (Group Correction Factor) does not affect HH customers. Could the following be the explanation? Some HH contracts separately price (and cost) each half hour of the electricity energy take of a customer. As HH market margins are now alleged by some people to be “wafer thin”, it is essential to have relatively fixed uplift factors for losses, or otherwise the HH current billing systems may not be able to cope. From an NHH customer perspective, if it is truly the case that the HH market can only perform with ex ante (i.e. fixed in advance) invariant “given” LLFs, then shouldn’t those LLFs be also pre-loaded with a risk-premium, in order to reflect the HH market “risk reduction” aspects, which are in fact carried by the NHH market variability?

We would also like to address what to us seems to us to be a piece of statistical illiteracy in the BSC Review Document, concerning the accuracy of meters and concomitant effects on materiality. Whilst it is true that section 4.1.4, 1st bullet mark, does clarify that “the accuracy of metering (around 2% for individual meters),” unfortunately section 5.5 para 25 seems to us to

attempt to assert via “The Audit materiality threshold currently is set at 0.1% of the total annual volume of energy. This is noticeably tighter than is common for statutory audits, and is also much smaller than other levels of uncertainty in the SVA Arrangements (for example, the accuracy of metering at around 2%,” that the accuracy of a “**group of meters**” is also around 2%. This is just not acceptable, and we believe cannot justify the Monty Python like proposal of “moving the goalposts” after a Qualified Audit of the monopoly activity of electricity settlement!

And by the way, the reason for statutory audits having a looser materiality than 0.1% is that they cover all sorts of companies, not all of which are monopolies, unlike BSC processes etc, so that’s another leg knocked down of the argument [in BSC Review section 6.4.1] for slackening the level of Audit Materiality “by at least a factor of 5” with the disastrous suggestion that “further work could provide support for a threshold higher than 0.5%”. May I remind you that in section 4.1.6 the BSC Review states that “in financial terms, energy volumes equivalent to perhaps £37bn (at £25 per MWh) have been successfully allocated through the arrangements “ and that 0.5% of £37bn would represent an uncertainty of £185m, presumably paid for by honest customers. Against these financial figures, the proposed sale price of Patent GB 2309086 seems a very good bargain, at a one off price of much less than £5m!

As we said earlier, our strategy includes that our patience will not be exhausted in carefully explaining to you – and other decision-makers – the argument for improved counter-measures against theft of electricity, and maladministration. Hence the foregoing.

We would also remind you that Ofgem are concerned about accuracy of bills – and would ask how can they be “accurate” if the underlying energy amounts (and hence costs) are apparently heavily influenced by alleged False Accounting, due to errors in Balancing being smeared mainly into the Domestic Consumer allocation, without any apparent sensible cost driver justification?

Incidentally, rightly or wrongly, the “talk on the street” includes some suggestions that losses might be going up each year by 0.1 percentage points, apparently due to around 20,000 customers being “lost” from records each year; or around 80 customers being lost each day; it is alleged that this is because the key feature of the 1998 Programme was that “a Supplier has to be able to lose a customer to a competitor supplier”. The gossip suggests that the Customer Transfer Programme (CTP) may be examining this aspect. Nevertheless, the astute Reader would note that “If we additionally were to have a DNO’s record of each MPAN (Meter Point Administration Point) by finite feeder element” – as proposed earlier – then this “problem” could be solved too!

Expanding on this aspect of the “Zeitgeist”, it is interesting to note that there seem to us to be similar parallels in the motor vehicle insurance market, where apparently a percentage of young motorists, and others, appear to be driving around uninsured, apparently due to cost savings. Currently things are so bad that each insured motorist has to pay around £30 pa, to cover these criminals. So steps are apparently being taken to improve the “Validation Procedures” available to the Police, etc. If this can happen in motoring, just why can’t it happen in the electricity energy market, where the impact of rising prices may encourage more theft, etc?

SUM UP: Apart from summarising [and solving] the surprising position of the GAP cover up – seemingly under the current Transmission Licence – the purpose of this letter (in which I would remind you, that for the avoidance of doubt, all statements in this Response are either expressions of opinion or suggestions of opinion either by Box Ten Ltd or by me, or both, unless they can be shown to be statements of fact) is to:

* Reply to yours of 11 August 2004 (and to advise you of our intention to provide a Box Analysis of it).

* Address the key challenges of the BSC SVA 2004-2005 Review of 7 September 2004 (and to advise you of our intention to provide a Box Analysis of it).

* Address the key challenges of Ofgem Consultation on Security of Supply, Ofgem Document Reference 217/04, due in September (as set out in the postscript to Liz Chester).

Finally on a personal basis, I feel sure you will understand that I would be delighted to have your personal confirmation that I have succeeded in persuading you to join me to pro-actively “fight the good fight” against theft as described above – even if it means “not doing some others any favours” – which is effectively millions of pounds being stolen from ordinary voting people every year.

Kindest regards

Yours sincerely

Don Stickland, BA (Oxon), MA (Oxon), BA (Open), ACMA
Director, Box Ten Ltd

PS to Liz Chester (liz.chester@ofgem.gov.uk) re Ofgem 217/04: This letter and its concomitant attachment(s) etc also form your requested Response to the Ofgem Consultation on Security of Supply (Ofgem Document Reference 217/04). This is because we unfortunately seem to have a situation where the “Conventional Wisdom” seems to have resulted in a figurative state of “the Blind leading the Blind”, which all too easily could result in some voters being literally in the dark – due to power cuts resulting from a generation plant margin failing due to theft of electricity in the winter. Counter-measures have been proposed, which regrettably – but understandably – seem to the author to be resisted by those unwilling to take a really fresh look at what’s going on. We trust that the innovations proposed in this Document will be faithfully reported in your Summary Document. As we understand that “the Energy Act places a duty on the Secretary of State to publish an annual report, jointly prepared by the DTI and Ofgem on short- and long- term security of supply, including an assessment of generation, transmission and distribution capacity, and lay that report before Parliament” we are requesting that you include this letter as an Annex to that Report, so that it may be either laid on the floor of the House(s), or be placed in the relevant Library, in order to stimulate discussion, should “the lights go out”.

PPS to Dorcas Batstone: This letter and its concomitant attachment(s) etc also form a Response to the BSC SVA 2004-2005 Review, of 7 September 2004, written by the customer on MPAN S/02/811/001/14/1117/0641/000, on behalf of his Supplier as chosen by his Landlord – they know who they are, of course. This is because that Supplier, who is a full Party to the BSC, in this instance unfortunately was unable to have sufficient time to consult with this particular customer; so, this Response has had to be sent direct, in order to meet the due date.

ENDS