Energy Efficiency in Facilities Management Contracts:

Guidance and Suggested Clauses

Consultation Questions

This 'Guidance and Suggested Clauses' has been developed using operational Facilities Management contracts and contracts which are currently in procurement. At the time of writing this document, Best Practice in the field of energy efficiency is still developing, and as such, we invite comments or queries on this guidance. There are a number of specific areas in which we would particularly welcome comments:

Key Issues

1. This guidance has been developed on the assumption that FM contractors have sufficient control over building systems to make a significant contribution to the delivery of energy savings.
   - Do you support the view that FM contractors often have the control over the energy consuming systems to play a key role in the delivery of energy efficiency?
2. The objective of this guidance is to promote the use of an output specification to allow FM contractors to innovate to deliver value for money for the public sector, rather than specifying inputs in the contract.
   - Do you think that this approach will allow FM contractors the flexibility and incentives to deliver energy savings?
3. The guidance seeks to incentivise the FM contractor to deliver energy savings through reporting, audits of energy profiles and equipment, minimum performance standards and a gain share mechanism.
   - Do you think that these are the right mechanisms to drive energy savings in FM contracts?
   - Are there any other mechanisms which should be considered?
4. This guidance sets out how a gain share mechanism might be used to share financial savings with FM contractors.
   - Do you think that a gain share mechanism will provide sufficient incentives to invest in human resources to deliver financial savings?
   - Do you think that the gain share mechanism is an appropriate way of incentivising FM contractors to invest in capital assets to deliver financial savings?
   - Are there any other contractual mechanisms which have been shown to be effective in delivering energy efficiency?
5. The guidance sets out proposals for developing a Baseline Energy Consumption, against which performance can be monitored. The guidance suggests correcting for weather, public sector led initiatives, headcount, working arrangements, staff behaviour and public holidays.
   - Do you agree that the interference factors listed in this guidance are the right factors to be corrected?
   - Are you able to provide any methodology or mechanisms which can be used to correct Baseline Energy Consumption for interference factors?
   - Do you agree that a contractors' performance be isolated from 'interference factors to be able to reward contractors for their efforts?

Please send any responses to these questions to the OGC Service Desk, by no later than Friday 30 September.

T: 0845 000 4999
E: ServiceDesk@ogc.gsi.gov.uk
www.ogc.gov.uk

Introduction

Energy efficiency is becoming an increasingly important policy objective for the public sector organisations, not only because of the opportunity to minimise carbon emissions, but also because of the potential to unlock financial savings. Facilities managers have a key role to play in the delivery of energy efficiencies because of their responsibility for the operation and upkeep of the public sector estate.

This guidance is prepared for public sector sustainability and procurement professionals and their advisers to provide an overview of the issues and mechanisms which can be used in Facilities Management (FM) Contracts to drive energy efficiency. This guidance was published in summer 2010 , and it is expected that as technologies and supplier best practice develops, it is expected that this guidance will need to be updated from time to time. The guidance consists of two parts, Part A: Principles of Energy Efficiency in FM, and Part B: Suggested Contract Clauses. This guidance is intended to provide an overview of key energy consumption issues and makes suggestions of different approaches which may be adopted, to promote innovation, rather than prescribe one specific approach.

There are challenges in designing FM contracts to ensure that the contracts are: a) enforceable; b) maintain a balance between efficient energy use and the resources required to monitor and deliver this; and c) maintain a balance between providing Contractors incentives to invest in resources and equipment, without unduly eroding any financial savings. The principles set out in this guidance will need to be developed into all aspects of the FM contract, including performance standards, reporting and, where appropriate, links to contract termination triggers.

This guidance assumes that the FM provider will have a degree of responsibility for the operation and maintenance of heating, lighting and cooling systems. Contracts will need to be tailored according to the role of specific requirements and circumstances for each Authority. This guidance has been prepared on the basis of a relatively straightforward FM contract structure. However, there are considerable variations in FM contracts (Prime, Total FM, Managing Agent or PFI contracts) and an Authority will need to take this into account during contract preparation. In each of these arrangements many of the principles set out in this document will apply. The overarching point is that it will be important to ensure that the party in control of energy using systems (heating, lighting, cooling, etc.) has the information and incentives to drive energy efficiency. In some cases this responsibility could be with more than one sub-contractor.

Whilst this document is focused on energy management because this is a key contributor to carbon emissions, an Authority should also consider whether to include similar provisions to address the broader aspects of carbon; including waste and water.

The objective of this guidance is to ensure that buildings are efficiently operated. However there is a clear link between investment in fabric and plant of buildings and energy efficiency. This guidance assumes that the FM provider will not have a role in funding large scale investment in energy saving measures, although, to the extent that an Authority wants to introduce significant investment in plant and Properties through the FM contract many of the principles set out in this guidance could still apply.

This guidance is relevant for Authorities who are planning to procure or make changes to FM arrangements. However there are issues which Authorities may wish to prepare for in the years prior to FM procurement, such as ensuring that data collection technologies are installed, and collecting benchmarking information, such as energy consumption and weather correction data.

An important consideration in delivery of energy efficiencies will be the nature of the relationship between the Authority and the Contractor. Whilst the existence of a contract is important to ensure that interests of the parties are protected, this does not substitute for a good Authority / Contractor relationship. A partnership approach is likely to be the most effective way of ensuring that energy savings are delivered in buildings where the behaviour of users, owners and operators will all impact on energy efficiency. This partnership approach will be particularly important when targeting savings from users.

Important Notice

This guidance is not a replacement for independent specialist advice and those who use it should ensure that they take appropriate professional advice when using this document. OGC accepts no liability whatsoever for any expense, liability, loss, claim or proceedings arising from reliance placed upon this guidance or any part of it. Users must always satisfy themselves as to the applicability of the relevant part(s) of this guidance to their particular circumstances.

Part A: Principles of Energy Efficiency in Facilities Management

Key Principles

There are some key principles which can be embedded in the Energy Management section of a FM contract. In this guidance these have been applied as follows:

- Where energy consumption is higher than the budgeted energy consumption because of poor FM, then an element of this additional cost should be passed on to the Contractor;
- Any penalties or deductions applied for poor performance should reflect the severity of failure;
- There should be an incentive for the Contractor to exceed the Performance Standards if this leads to cost and carbon savings for the Authority; and
- Performance Standards should be objective, transparent and easy to measure.

Monitoring and Reporting

At the heart of any performance improvement arrangement is good quality, robust data. Energy Data should be consistently monitored and shared between the Authority and Facilities Manager through a reporting process.

Data is critical for the Contractor and Authority to be able to identify and eliminate waste (for example, to identify poor performing Properties in an estate, or trend analysis), to evaluate Contractor performance; and to inform investment decisions in energy saving measures. Further information on Monitoring and Targeting is available on the Carbon Trust website:

http://www.carbontrust.co.uk/Publications/pages/publicationdetail.aspx?id=CTG008

The Reporting regime in FM contracts can be used as a tool to ensure that the Contractor is monitoring energy consumption and developing strategies to drive energy efficiencies.

Exception reports (e.g. where energy consumption is above a pre-determined benchmark) can be used to ensure that the Contractor reviews any exceptions to performance on a regular basis and intervenes to correct and prevent the exceptions from repeating.

The main type of data to be monitored and reported is energy consumption data. This data should be available from meter readings for each Property, split according to the fuel source. Given the impact of heating and cooling on energy use, Authorities may consider that it is also appropriate to monitor and report room temperature information and outdoor temperatures.

The role of the Facilities Manager in collecting and reporting data may vary according to whether an Authority prefers to retain this 'in house'. However, it is important for an Authority to recognise that if this is retained in house, data should be shared with the Contractor so that waste can be identified and eliminated by those in control of the Property heating, cooling and lighting systems.

Authorities may include installation of metering as part of the FM contract. Where this is included, the Authority should ensure that the specification and ownership of metering equipment is clearly set out within the contract.

Authorities should have an awareness of the costs and likely savings associated with the implementation of metering and reporting systems. The Authority will need to ensure that basic management information is made available through the contract, whilst ensuring that the costs of reporting do not outweigh the financial benefits.

Energy Profile Audits

Energy Profile Audits can be used to identify and eliminate waste energy consumption. Half hourly energy consumption readings should be reported over a fixed period and scrutinised to identify wasteful energy consumption (for example, energy consuming equipment being used when the Property is not occupied).

Energy Profile Audits should be conducted regularly for each Property, exceptions reported to the Authority, and the Authority should be provided an opportunity to challenge the Contractor's report. Energy Profile Audit reports provide evidence to the Authority that the Contractor is monitoring operations. An example of an Energy Profile Audit report is included in Appendix 1.

Audit of Plant and Equipment

The condition, age and type of equipment will have a significant impact on the efficient operation of the Property. One of the services that an Authority may want the Contractor to provide is a periodic audit of key elements of plant and equipment (e.g. Building

Management Systems or Heating, Ventilation and Air Conditioning equipment), potentially including the monitoring equipment.

The main objective of the audit of plant and equipment is to ensure that the Contractor and the Client understand the condition of key elements of plant and equipment and can identify any remedial actions which will improve energy efficiency.

The scope of the equipment audits should be set out in the contract, and information should be provided to enable the Authority to make a decision as to whether plant and equipment should be replaced. This information should include financial analysis which shows the costs, financial savings and carbon savings for the asset replacement.

Performance Standards

The overarching principle of the performance standards is to transfer risk to the party that is best placed to manage it.

In FM contracts, one of the key energy related risks is that energy consumption is higher than necessary because heating, lighting or cooling systems are being operated inefficiently; for example operation outside of the hours of occupation of the Properties, or by failing to replace inefficient plant. These are the types of risks that an Authority should seek to transfer to facilities managers who control the systems. In this guidance the targets are focussed on the financial implications of energy consumption. However, an Authority may decide that it is appropriate to include performance standards which focus on carbon emissions.

Authorities should not require the private sector to accept risks which are outside of its control; for example, energy consumption will vary because of the impact of outside air temperatures on heating and cooling requirements, as will any public sector decisions to extend the hours of operation of the Property.

Facilities management contracts should be sufficiently detailed to enable the Authority to reward or penalise good / poor performance. For example; performance standards which isolate the performance of individual Properties are likely to be more straightforward to enforce than performance standards which consider a large estate, where there are more interference factors.

The public sector is constantly changing, rarely more so than at the present time (summer 2010) with current estates transformation programmes. Any performance standards should be capable of flexing to cope with circumstances as they arise. Key Performance Indicators usually set the minimum acceptable performance standards.

An Authority should be aware that public sector policy often changes, and for this reason, it may be preferable to link targets to well defined performance standards, rather than a national target regime which may be susceptible to change.

Poor Performance – Key Performance Indicators

Key Performance Indicators (KPIs) are the main remedy for poor Contractor performance. Key performance indicators should clearly set out the minimum Authority requirements, the period of measurement, and method of calculation so that there is no ambiguity.

In a FM contract the main energy related performance standards are likely to be:

- Obligations to maintain energy consumption below a Baseline Energy Consumption (see below);
- Obligations to deliver reports on time and in the format required by the contract; and
- Obligations to conduct any energy profile audits or energy equipment audits on time and in accordance with the contract.

Performance deductions should be applied where a Contractor fails to meet minimum performance standards. Performance deductions should be calibrated to provide incentives to the Contractor, but care should be taken to ensure that deductions are damages for a loss incurred by an Authority rather than as a penalty (legal advice should be sought on this issue).

Baseline Energy Consumption

The Baseline Energy Consumption should be based on the best available energy consumption data, ideally taking account of as many years of data as possible, and using weightings to use more recent data to take account of most recent Property occupancy, use and energy initiatives.

The Baseline Energy Consumption is likely to be most useful if it is considered on a building by building basis. This will allow the Contractor and Authority to separately identify any energy consumption issues arising.

Baseline Energy Consumption can either be set up front in the contract or agreed at the start of each year by the Authority and the Contactor. Agreement up front is likely to give less scope for disagreement with Contractors, but this may be offset by reduced accuracy. Conversely setting Baseline Energy Consumption at the start of each year may give scope for disagreement with Contractors, but, should be more accurate because data will be more recent.

One complex aspect of setting performance standards is how to set a benchmark against which performance can be measured. The reason for this is the large number of interference factors which will impact on energy consumption, including:

Outside air temperatures;

- Authority led energy efficiency initiatives (including IT use);
- Changes in staff headcount;
- Changes in staff working arrangements;
- Changes in staff behaviour; and
- Public holidays.

Interference factors will have a Property specific impact on energy performance. What is important is to establish a benchmark against which performance can be measured and, the contract should set out how adjustments should be made to take account of interference factors.

For performance standards to be robustly enforceable, either the Parties will need to accept that there are imperfections in the Performance Standards and accept that imperfections will even out over time, or they must develop a more complex mechanic to ensure that interference factors are addressed in the contract. Care should be taken to ensure that the mechanisms are not unduly complex or difficult to understand and implement by contract managers.

Where Baseline Energy Consumption does not already exist, an Authority may consider including a requirement for the Contractor to establish a baseline in the early stages of the Contract. Once established, this baseline could then become the basis for performance measurement.

Asset Level Monitoring

Where specific assets are introduced into a Property through the FM contract, greater precision can be achieved in monitoring performance by measuring the performance of specific assets.

This technique can only be applied to measurable equipment – for example boiler equipment where input and outputs can be measured, and performance evaluated with reference to the old equipment.

Detailed guidance is available on monitoring and verification of performance in the International Performance Measurement and Verification Protocol (IVMVP) at http://www.evo-world.org/. The Carbon Trust also includes guidance on Monitoring and Targeting: http://www.carbontrust.co.uk/publications/pages/publicationdetail.aspx?id=CTG008

Correcting for Weather

For each Property, there is a close correlation between space-heating demand and the regional external temperatures (normally expressed in degree-days).Degree days are a measure of severity and duration of cold weather. This correlation provides a mechanism to make adjustments to energy consumption figures to strip out the impact of fluctuations in external temperatures on energy consumption.

The details of the calculation of the degree day adjustment will need to be agreed, in particular the time period over which adjustments are applied (daily, weekly or monthly) and whether it will be calculated on a building specific basis / regional / national. In agreeing the details of the calculation, there will necessarily be a trade off between accuracy and the administrative burden.

In order to make these adjustments, the Authority must ensure that it has collected robust data to enable adjustments to be made. A benchmark for the impact of degree days for each Property should be developed. i.e. plot daily energy consumption against the degree days (for the area).

Where an Authority has monthly energy consumption data it may be possible to generate an approximate degree day adjustment for the first year. This can be refined on a daily basis as more detailed data becomes available.

Degree days are published on http://www.vesma.com/ddd/

The Carbon Trust has also published guidance on 'Degree Days for Energy Management':

http://www.carbontrust.co.uk/Publications/pages/publicationdetail.aspx?id=CTG004&respos=0&q=degree+days&o=Rank&od=asc&pn=0&ps=10

Correcting for Authority Led Initiatives

Where an Authority has implemented initiatives which will lead to savings which are not accounted for in the historic energy consumption figures, the baseline consumption should be adjusted to take account of this.

In the same way, the impact of any new (non energy) based initiatives, such as major IT projects should be considered to assess if there is a material impact on the energy consumption by an Authority.

Care should be taken so as not to underestimate the savings from the Authority led measures, and thereby give credit to the Contractor for these initiatives, and conversely, nor should savings be overestimated, as this might remove incentives for the Contractor to perform well.

Correcting for Other Interference Factors

Corrections may need to be made for other interference factors such as Staff Headcount / Staff Working Arrangements / Public Holidays / Client Actions (e.g. requests for additional heating / cooling outside of contractual requirements).

Some adjustments will be easier than others to quantify, for example, it may be relatively straightforward to estimate the impact of an extra Property user on electricity use because there is likely to be a close correlation between numbers of workstations and electricity use. However, the impact of an additional building user on heating will be less straightforward to isolate and quantify.

The contract will need to set out adjustments which can be made, the parameters within which the performance mechanisms (KPIs and Gain Share) will continue to operate (relief events), and set out what happens if these parameters are breached (e.g. is there a mechanism to compensate a Contractor for any lost investment in the event that a Property is disposed without warning.).

Continuous Performance / Gain Share Mechanisms

Continuous performance mechanisms (e.g. reducing energy by 2/3% p.a.) have often been used to drive an improvement in energy performance. A disadvantage to this approach is that a Contractor may 'hold back' savings in a year so that they can demonstrate year on year savings.

An alternative approach (or indeed one which could be combined with continuous improvement), suggested in this guidance, is to use a gain share mechanism. The purpose of a gain share mechanism is to incentivise a contractor to exceed minimum contractual requirements to deliver savings for the Authority over the contract period. The gain share mechanism could be used to provide contractors with the opportunity to invest in additional staff or technologies which deliver energy savings (note that there may be accounting implications where the contractor provides investment in assets). Therefore, a key consideration when setting up a gain share mechanism is to provide a stable contractual basis for the Contractor to make investment decisions.

Within the suggested contract clauses is a suggested gain share mechanism. However there may be other mechanisms for achieving a similar outcome, such as requiring a Contractor to guarantee a minimum energy saving / continuous improvement over the period of the contract or by requiring the buildings to use a minimum standard over a certain period (e.g. this could use 'BREEAM: In-use' methodology).

A key issue to consider in the gain share mechanism will be the relationship between the Authority's controls and permissions over planned and reactive maintenance and the Contractors' ability to deliver savings to access any gain share or guaranteed of energy savings.

It may be appropriate to extend the contract length to allow Contractors to recoup their investments and incentivise Contractors to consider the whole life costs of energy saving measures.

Capital Investment in Energy Efficiency

Investment in the maintenance of building systems often has a significant impact on the energy performance of buildings.

Some of the concepts set out in this guidance, such as the use of a gain share mechanism can be helpful to encourage Contractors to invest in low cost assets to deliver value for money savings for an Authority. An alternative approach is to specify that Contractors will invest in energy savings measures which pay back over a certain timeframe, but our view is that this approach may be difficult to enforce where costs and savings will not be known up front.

However an Authority should be aware that there are limitations to delivering investment in buildings through an FM contract. The nature of the FM contract will constrain the extent to which value for money can be delivered. Specifically, the contract length will limit the degree to which a Contractor bears the risk of the whole life cost of assets, and it will also serve as a constraining factor in investment in energy efficiencies, because investment will be limited to assets which payback over the remaining contract length.

An Authority should also note the implications of accounting for assets which are privately funded through an FM contract. This is a complex issue and expert advice should be sought.

Where Authorities are seeking to deliver large capital investments, an Authority will need to develop an approach which delivers value for money. Such an approach might include:

- a standalone procurement (e.g. using an ESCO, Energy Contracting Model, etc.) – further information is available at: http://www.ogc.gov.uk/our_support_energy_efficiency_measures_in_the_government_estate.asp;
- extending the FM contract length and scope so that the asset can be repaid over the contract length;
- setting minimum technology standards and requiring asset warranties;
- innovative property ownership models which use output specifications to combine property ownership and operation (i.e. serviced accommodation); or
- specifying framework rates for types of assets in the FM contract.

This type of investment is outside the scope of this guidance and should be considered on a case by case basis.

Specific Requirements

An Authority may have specific additional energy related requirements which could be included in the scope of a FM contract.

- If advanced / smart metering does not already exist in an estate, it may be appropriate to require the facilities manager to install this (and ensure that this complies with CRC Energy Efficiency Scheme if required)
- Where an Authority is obliged to report carbon emissions, the Contractor could be required to prepare such data submissions.
- The Contractor could be required to undertake boiler optimisation works, etc.

Part B: Suggested Contract Clauses

ENERGY MANAGEMENT

1. Overview

1.1 The Authority is committed to responsible energy management and the efficient use of energy throughout its operations. It also recognises that good energy management helps to protect the environment by conserving natural resources and reducing harmful emissions. The Contractor shall take account of, and comply with, the Authority's policy on [Energy Efficiency / Sustainable Development Plan] which sets out the Authority's aims and objectives for minimising its environmental impact.

1.2 The Contractor shall [support / maintain / implement / provide information for the Authority's] Environmental Management Systems (EMSs) or Building Management Systems (BMS). Where applicable, the Contractor shall implement systems which are based on, or modelled upon, a recognised standard (such as ISO 14001 or Eco-Management and Audit Scheme (EMAS)).

1.3 Utilities

1.4 The [Contractor / Authority] shall be responsible for the procurement and management of Utilities and authorisation of payment of the Utilities bills from an Authority held account for all sites, complying with the Authority's procurement strategy.[1] The Authority reserves the right, not to use alternative providers suggested by the Contractor.

1.5 The Utilities bill shall be in the name of [Authority / Contractor][2]

1.6 The Contractor shall monitor and validate all meter readings at all of the Properties. The Contractor shall take all reasonable steps to ensure that meter readings i) can be reconciled to Utilities bills, ii) are correctly calculated and iii) meter readings accurately reflect actual energy consumption.

1.7 The Contractor shall ensure contingency plans are in place to address the loss of each or all energy supplies, and that these have been reviewed and tested [at least every [x] months / to a programme agreed with the Authority]. The Contractor shall ensure its contingency plans are executed as planned with due expediency following the loss of one or more energy supplies. The Contractor shall, as soon as it is aware, inform the Authority's Representative of all scheduled interruptions to any energy supply whether or not it may affect the Authority's operations.

2. Access to Information

2.1 The Contractor shall be granted access to the Authorities' metering systems, together with any supporting technologies and software systems.

2.2 The Contractor may use the information from the metering systems solely for the purposes of operating under this Contract[3].

3. Monitoring and Reporting

3.1 The Contractor shall be responsible for taking main and sub-meter readings as required in accordance with this Contract, and shall provide all reports and volumetric Data relating to energy consumption as required in Appendix 1 (Monthly Energy Report) and agreed with the Authority in the relevant format and to the agreed intervals.

3.2 Where applicable, the Contractor shall work with the Authority to share data and ensure the most accurate data is available to all parties.

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[1] Note that this section should make reference to energy procurement through any collaborative strategy such as the 'Pan Government Energy Project'.

[2] Note that there will be CRC Energy Efficiency Scheme implications for the signatory of the energy bill. See http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/crc.aspx and http://www.environment-agency.gov.uk/business/topics/pollution/98263.aspx for guidance.

3 Note that this clause should take account of the Confidentiality Clauses of the FM Contract.

3.3 Monthly Energy Report

3.3.1 The Contractor shall report Energy Consumption for each Property on a Monthly basis. The Contractor will submit a Monthly Report in the form set out in Appendix 1 (or as otherwise agreed between the Authority and Contractor).

3.3.2 For each Property the Monthly Energy Report shall include the following information, set out for the relevant Month and for the Year to Date:

- Electricity consumption;
- Gas consumption;
- Other fuel use; and
- Total energy consumption.

3.3.3 The Monthly Energy Report shall set out the energy consumption compared to a Benchmark Energy Consumption, as defined in accordance with this Contract (see below).

3.3.4 The Monthly Energy Report shall identify priority initiatives for the forthcoming Month, together with any assistance and permissions required from the Authority or third parties.

3.3.5 The Contractor and the Authority shall meet on a [x] Monthly basis to discuss and agree the Monthly Energy Reports.

3.4 Benchmark Energy Consumption

3.4.1 The Benchmark Energy Consumption will be calculated using the energy consumption data for the [x] prior year(s).

3.4.2 The Benchmark Energy Consumption will be adjusted by agreement with the Contractor to take account of savings from the Authority led initiatives, Authority funded initiatives, errors in base data, and changes in external air temperatures but shall not be adjusted for any other reason.

3.4.3 Adjustments for changes in external air temperatures shall be calculated using Weather Adjustments Factors.

3.4.4 Weather Adjustment Factors shall only be applied to gas consumption [DN: This assumes that heating is gas fired].

3.4.5 Weather Adjustment Factors shall be calculated using the monthly gas consumption for the previous [x] year(s) and the degree days information (published on **http://www.vesma.com/ddd/**) from the previous [x] year(s).

3.4.6 Weather Adjustment Factors shall be agreed between the Authority and the Contractor prior to the start of the Contract.[4]

3.4.7 The Benchmark Energy Consumption will be set for the first year and will remain in force throughout the whole contract period. [5]

[4] Further methodology will be required which sets out the basis of calculation of any Weather Adjustment Factors.

[5] A Benchmark Energy Consumption which applies throughout the contract may allow the Contractor to finance long term investments in resources / infrastructure

3.5 Energy Profile Audit

3.5.1 The Contractor shall undertake an Energy Profile Audit for each Property on a rolling [x] month basis. The Contractor will submit an Energy Profile Audit Report for each Property in the form set out in Appendix 2 (or as otherwise agreed between the Authority and Contractor).

3.5.2 The Contractor shall provide the Authority with a Schedule of planned Energy Profile Audits within [x] month(s) of Contract Commencement, which sets out when each Property will be subject to an Audit.

3.5.3 The Energy Profile Audit shall be made available to the Authority with the Schedule of planned Energy Profile Audits.

3.5.4 For each Property, the Energy Profile Audit Report shall include the following:

- For a given [Month], a graph which sets out the energy consumption for a given Property, on a half hourly basis;
- Identification of any excess energy consumption by comparing the heating profile and daily occupancy;
- Identification of any excess energy consumption at night;
- Identification of any excess energy consumption by comparing the heating profile and weekend occupancy;
- Identification of any excess energy consumption for holiday periods;
- Any other excess energy consumption; and
- Actions to be taken by the Contractor and Authority to reduce energy consumption.

3.5.5 The Contractor and the Authority shall meet on a [Monthly] basis to discuss and agree the Energy Profile Audits.

3.6 Statutory Compliance

3.6.1 The Contractor shall arrange the implementation, display and renewal of Display Energy Certificates (DECs) at any Properties required by the Authority, including those Properties which require DECs under Government legislation. The Contractor shall ensure all DECs are correctly displayed by the required date. The Contractor shall advise the Authority on which recommendations to follow in the supplementary advisory reports. [6]

3.6.2 The Contractor shall advise the Authority on how to meet existing and forthcoming statutory requirements under environmental legislation.

4. Performance Mechanism

4.1 The Contractor shall ensure that energy consumption for each Property is optimised. Where energy consumption is higher than the Baseline Energy Consumption, a Deduction may be applied. Where energy consumption is lower than the Baseline Energy Consumption, the Contractor may be entitled to a gain share.

[6] An Authority may want to include requirements for the Contractor to ensure compliance with other regulatory requirements, such as air conditioning inspections, Energy Performance Certificates or CRC Energy Efficiency Scheme reporting requirements.

4.2 Minimum Energy Performance Standards

4.2.1 Energy Performance will be measured with reference to the Key Performance Indicators (see below).

4.2.2 Where the Contractor does not meet the Performance Standard, the Contractor will apply a Deduction to the Monthly Contract Invoice.

4.2.3 The Key Performance Indicators shall be as follows[7]:

Performance Standard	**Measurement**	**Deduction**
Energy use for a given Property shall not exceed the Benchmark Energy Consumption (see 3.4)	Annual	[X]% of additional energy costs incurred by the Authority, calculated using energy consumption and the Baseline Energy Price
Contractor fails to provide Monthly Energy Reports in time, or in the required format	Per Report Days Late	£ [X] per report day late
Contractor fails to conduct energy audits	Per Report Days Late	£ [X] per report day late
[DN: others]		

4.3 The Baseline Energy Price shall be calculated as the weighted average energy cost per unit paid by the Authority in the prior year, adjusted for annual inflation using [Index[8]].

4.4 Gain Share

4.4.1 In a given year, for each Property, the Contractor shall be entitled to a share of energy savings where energy is lower than the Benchmark Energy Consumption.

4.4.2 The Contractor's share of savings shall increase as the energy savings increases, in accordance with the following table[9]:

'Band' - Annual Energy Saving against Baseline Energy Use	**Contractor Share of Saving**	**Authority Share of Saving**
From 0 up to X%	[a]%	[100-a]%
From X% to Y%	[b]%	[100-b]%
From Y% to Z%	[c]%	[100-c]%
More than Z%	[100]%	-

4.4.3 The financial savings shall be calculated, for each Band, by calculating the difference in volumes between Actual Consumption and the Benchmark Energy Consumption, multiplied by the Baseline Energy Price.

4.5 Audit of Plant and Equipment

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[7] Performance standards and deductions will need to be agreed between the Contractor and Authority during the procurement process.

[8] A suitable index should be agreed in advance, such as a recognised Energy Price Index or RPI.

[9] Gain Share percentages and bands will need to be agreed by the Authority and the Contractor during the procurement process.

4.5.1 The Contractor shall undertake an Audit of all Key Plant and Equipment[10] on a basis agreed with the Authority and submit an Audit Report at the end of each Contract Year.

4.5.2 The Audit Report shall identify Key Plant and Equipment which can be replaced to deliver Cost Effective Carbon Dioxide reductions[11].

4.5.3 The Audit Report shall set out the costs of replacement, estimated financial savings, carbon savings, operation and maintenance savings and the timescale for implementation for the asset replacement.

4.6 Boiler Optimisation

4.6.1 The Contractor shall undertake a rolling programme of boiler audits over a [12 month] period and will identify where boilers can be optimised to deliver energy savings.

4.7 Excusing Causes

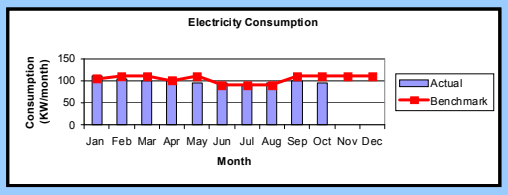
Drafting Note: This section will need to set out the parameters within which the Contract provision apply – for example, gain share or performance deductions may work differently where there are significant changes in headcount, where Properties are disposed, where there is a change of use of a Property. .

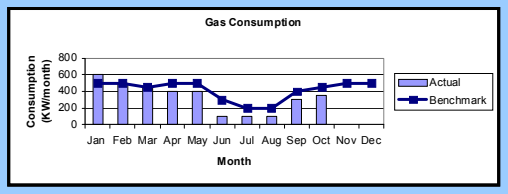
[10] Key Plant and Equipment will need to be clearly defined in the Contract.

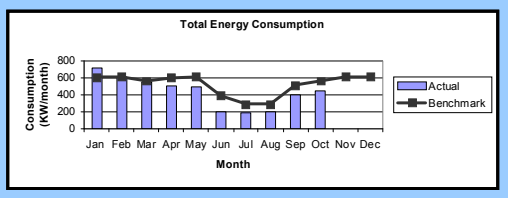
[11] Note that 'Cost Effective Carbon Dioxide Reductions' will need to be defined. This could be in terms of a payback period.

Appendix 1: [Proforma] Energy Profile Audit Report

Building Name
Month







		Energy (KwH)	Carbon (tCO2)	Energy Variance
This Month		95	[ ]	**-16%**
Variance	-	15	[ ]	
YTD		4,285	[ ]	**-17%**
Variance	-	740	[ ]	

SUMMARY

Total energy consumption for the month was up / down by [ ] against the benchmark

Year to date energy consumption for the month was up / down by [ ] against the benchmark

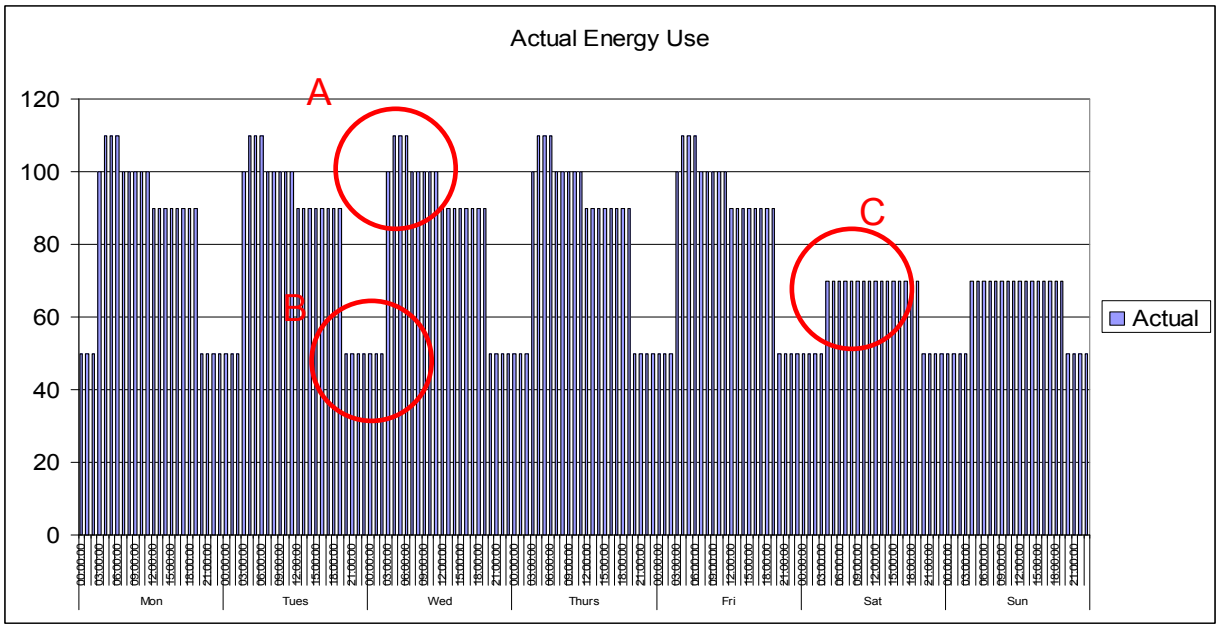
[Insert Explanation]

ENERGY FOCUS

The energy focus for the forthcoming month will be [ ].

Appendix 2: Energy Profile Audit

Name of Affected Property: [ ]



Key Issues

A. Occupancy Time: Does the heating system profile correlate with the occupancy times?

B. Night Use: Is the night time base load optimised?

C. Weekend Use: Is the weekend base load optimised?

D. Holiday Use: Is the heating system scheduled to shut down over holiday periods?

E. Other: [ ]

Actions to be taken by the Contractor

[ ]

Actions to be taken by the Employer

[ ]

Name of Reviewer:

Date:

OGC 1 Horse Guards Road,
London SW1A 2HQ

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T: 020 7271 1318
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