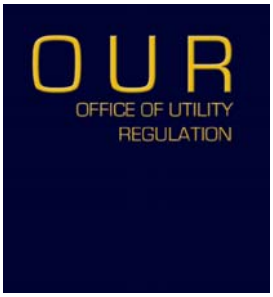

Office of Utility Regulation

Price Control on

Guernsey Electricity Limited

Decision Notice

Document No: OUR 05/31 **December 2005**

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1. Introduction

This document sets out the final price control for Guernsey Electricity Limited ("GEL"). Since the publication of the Draft Decision in September 2005, a significant amount of debate has taken place on both the detail and purpose of the price control. As was highlighted in the Draft Decision a price control serves many purposes and regulators are required to balance a number of competing and often diametrically opposed interests in setting such controls.

Among the competing interests will be the desire on the part of consumers that prices remain as low as possible. On the part of the utility, ensuring it has sufficient cash to run its business both over the price control period and beyond will be important. The States has a dual role and consequently a dual interest. As shareholder it will want to ensure that its company is financially viable and that the company operates efficiently and provides a return to the shareholder. But the States is also responsible for the wider economy and will therefore also look to ensure that GEL complies with its policy for security of supply while at the same time ensuring that the cost of the provision of this service doesn't unduly impact upon the costs associated with doing business in Guernsey (either through high charges or through the impact on inflation).

In a competitive market, competition would look to ensure that the prices being charged by a company reflect those of an efficient operator. It is noticeable that in the UK, utility providers who face competition have looked to identify efficiency gains as early as possible. While a regulator may identify where it believes a company has scope for efficiency gains, it is doubtful whether these gains would match those which a company itself might make were it facing competition. Therefore in looking to make adjustments to a regulated company's cost base for such efficiency savings the regulator must work with the information available to it and the advice of experts in this area.

The price control also seeks to change the behaviour of a regulated company. Prior to the introduction of regulation, companies tend to make investment decisions from the perspective of the company only. This is particularly true in markets where there is a monopoly provider as customers have no choice of service provider or of the price they pay for that service. Regulators look to identify where the benefits of any particular investment are for both the utility provider and the consumer. This may mean a different level of assessment than that which the company itself may have undertaken. In setting this price control the OUR has carried out such an exercise and taken account of the outcome of this review in framing the price control.

This price control seeks to ensure that GEL has certainty with regard to the changes expected of it, both in terms of tariff changes to customers and in the savings that it will be expected to make over not just the price control period but beyond. It seeks to ensure customers have certainty on how their electricity bills will change over this period. While an increased tariff for any service is regrettable, the DG has to have regard to the wider factors which are a feature of the energy market in which GEL operates. He must also have regard to the long term needs of the island and making sure that GEL is run efficiently and is a sustainable, financially viable business.

This price control is now in place until 31st March 2007. In the Draft Decision, the DG had proposed setting the control to run until March 2009. However a number of issues which have a fundamental bearing on the level of any control have arisen and the DG believes these require further consideration. These include the use of GEL's cash reserves and the impact of this on the level of any control. The return which the States as Shareholder is entitled to needs to be further clarified also. Therefore the DG believes the pragmatic approach is to set a shorter control than originally planned and to work with the various stakeholders to clarify these matters so that a further control can be set from April 2007. This is addressed in more detail in section 13.

The new tariffs determined in this decision will take effect from 1st January 2006. GEL will now be required to demonstrate that prices increasing after 1st January 2006 and 1st April 2006 do not exceed RPI + 1.7% on each occasion, where RPI is the latest available 12 month figure as published by the Treasury & Resources Department. The 1st January 2006 price change is based on an RPI figure of 3.8%.

2. Structure of the Paper

2.1. Structure

The rest of this paper is structured as follows:

Section 3: sets out the background to the price control and the role of the States in setting the policy framework;
Section 4: summarises the legal framework of this price control;
Section 5: provides an update on developments since the last price control;
Section 6: details the nature of the responses received to the Draft Decision;
Section 7: sets out the DG's position on key technical elements of the price control;
Section 8: assesses the revenue required by GEL to meet its commitments over the price control period;
Section 9: sets out the main proposals on GEL's capital expenditure for the period of the price control;
Section 10: sets out the main proposals on GEL's operational expenditure for the period of the price control;
Section 11: addresses GEL's accumulation of cash reserves for future capital expenditure;
Section 12: summarises the main proposals of the decision;
Section 13: sets out the next steps in the process;
Appendix A: sets out the formal price control determination;
Appendix B: sets out the DG's interim approach to setting the return to shareholders;
Appendix C: deals with the potential for efficiency savings; and
Appendix D: discusses the implications of security of supply on the Regulatory Asset Value.

2.2. Comments

The OUR received responses to the draft decision paper from four parties:

- Friends of the Earth Guernsey ("FoEG");
- Guernsey Electricity Ltd ("GEL");
- International Energy Group ('IEG'); and
- PricewaterhouseCoopers ('PwC')

The DG would like to thank all parties for their responses to the Draft Decision document. In line with OUR standard practice, with the exception of any responses marked as confidential, written comments in response to the Draft Decision are available for inspection at the OUR's office and are also published on the OUR's website - www.regutil.gg.

3. Background

3.1. Policy Issues

In March 2003 the OUR, following consideration of proposed tariff increases from GEL, decided there were a number of strategic issues where clarification of the wider States policy would be required before any decision could be made on any future price control for GEL. In that decision (OUR 03/07[1]) the DG highlighted that, given the vital role that secure, cost efficient electricity supplies play in the overall development of Guernsey's economy, it was important that the economic, environmental and security of supply trade-offs across the various planting strategies realistically available to fulfil Guernsey's future electricity requirements be fully understood and assessed prior to considering the form of any detailed price control.

The DG's view was that a review of these areas would allow for a quantification of the costs associated with various scenarios, including GEL's approach which would in turn allow any price premium associated with the policy considerations to be assessed by the States in the context of:

- a preferred policy;
- if any premium payable was politically and socially acceptable (particularly with respect to any implications it may have for the competitiveness of Guernsey's economy); and
- how such a premium might be funded.

Since that decision the Commerce & Employment Department (C&E), aided by consultants Mott McDonald, has carried out a major study on the options for meeting the future generation needs of the Island. The study has critically assessed a range of generation options realistically available to Guernsey to enable the States to meet its electricity needs over the foreseeable future. This report assessed each option against other policy considerations, including security of supply, independence, environmental issues and overall cost.

The report was presented to C&E in December 2004. Since then that Department has consulted widely with other States Departments and agencies and on 30th November 2005, presented a policy letter to the States for consideration of an energy policy for the Island.

The OUR has liaised closely with C&E given the importance of its work to the framing of any price control decision. The OUR notes that the States at its November meeting agreed to establish an Energy Policy Review Group to consider further Guernsey's preferred approach to the wider energy and environmental issues. In the event that the future work of this group has any implications for the current or future price controls for GEL, the DG will consider the implications at that time. However the DG would anticipate that given the duration of this price control that any such review will be unlikely.

[1] Price Regulation of Electricity: Report on the Consultation Paper and Decision Notice.

3.2. Draft Decision and Consultation Process

On 26th September 2005, the OUR published its Draft Decision on the price control to apply to GEL from 1st January 2006. The purpose of a draft decision is to ensure that all interested parties have a final opportunity to put such information as they believe relevant before the OUR so that a final decision may be made taking account of all available information. It also provides an opportunity for interested parties to seek clarification or to discuss any aspect of a draft decision. GEL were encouraged to avail themselves of the opportunity during the consultation period to seek clarification and discuss any aspect of the proposed decision before submitting its response.

The DG regrets that GEL did not avail of this opportunity during this period and believes it would have assisted both parties and the overall process had such discussions taken place. The DG is disappointed that more constructive engagement did not take place during the period for comment. The DG does not believe that the approach taken by GEL assists in any way to ensure that the costs of regulation are the minimum needed to achieve the objectives that the States has set for commercialisation and regulation.

The DG would again strongly encourage all licensees and interested parties across all sectors to meet the OUR during any consultation period to discuss and clarify issues raised in consultations and when considering future draft decisions.

4. Licensing Regime and Legislative Framework

4.1. Overview

The legislative framework underpinning the regulatory regime for the electricity sector is governed by:

- The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001 (the "Regulation Law");
- The Electricity (Guernsey) Law, 2001 (the "Electricity Law");
- The Electricity (Guernsey) Law 2001 (Commencement and Amendment) Ordinance 2001; and
- States Directions to the DG adopted by the States of Guernsey[2].

The Electricity Law defines the three activities that constitute the electricity supply chain under the current legislative framework, these are;

- the generation of electricity;
- the conveyance of electricity across the electricity network; and
- the supply of electricity directly to homes and businesses.

These terms, are defined in the Electricity Law and govern the current licensing framework which is outlined below.

4.2. Current Licensing Regime

The States of Guernsey has issued a number of States Directions to the DG in relation to the licensing of electricity activities in Guernsey. In accordance with those Directions the DG issued the first licences for electricity generation, conveyance and supply to the incumbent electricity company – GEL - on 1st February 2002.

The market for generating electricity is, in principal, open to competition. In terms of conveyance, under the current regime no other operator can lay electricity cables and anyone generating electricity must therefore use the existing electricity network of GEL to convey that electricity from their generation plant to customers. In terms of supply, only GEL may sell electricity to end customers.

4.3. Legislative Background to Price Regulation

Section 5(1) of the Electricity (Guernsey) Law, 2001, provides that the DG may include in licences such conditions as he considers necessary to carry out his functions. The Law specifically provides that such conditions can include (but are not limited to) conditions regulating the price premiums and discounts that may be charged or (as the case may be) allowed by a licensee which has a dominant position[3] in a relevant market[4].

[2] Billet d'Etat No.XVIII 2001, pages 1263-1264 and Billet d'Etat I of 2003, p.55

[3] Condition 5(1)(f) of the Electricity (Guernsey) Law, 2001.

[4] Section 22 of "The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001 states that:

In accordance with these provisions, the "Electricity Licence Conditions" include the following condition 20.2:

"The DG may determine the maximum level of charges the Licensee may apply within a relevant market in which the Licensee has been found to be dominant. A determination may;

(a) provide for the overall limit to apply to such charges;
(b) restrict increases in any such charges or to require reductions in them whether by reference to any formula or otherwise; and
(c) provide for different limits to apply in relation to different periods of time falling within the periods to which any determination applies."

This condition allows the DG to regulate the prices that a licensee charges for its electricity services in a way and for a period that he deems appropriate, provided the licensee has a dominant position in the relevant market.

As set out in a previous OUR document (OUR03/07), Guernsey's retail electricity market currently possesses a monopolist operator that also has a dominant position throughout the electricity supply chain (i.e. Guernsey's electricity sector is characterised by a vertically-integrated monopoly). This position of economic strength is unlikely to change in the near to medium term. In this context it is essential that the social objective of maintaining the affordability of electricity provision, thus underpinning economic growth, is safeguarded. In the absence of competition, price control is widely accepted as the most appropriate tool to achieve this.

GEL has also suggested that the OUR should also highlight the States guidance to Treasury & Resources Department (previously Advisory & Finance) prior to the commercialisation of GEL. This guidance[5] stated, inter alia, that:

4. Financial performance targets for Guernsey Electricity Limited shall be set so as to:

1. *deliver improved efficiency in fulfilling the requirements of the Public Supply Obligation imposed under the regulatory regime whilst drawing a balance between seeking a commercial return on the resources employed and the effect on the community of any increase in charges which may result; and*
2. *achieve as soon as is practicable an appropriate commercial return on the resources employed in the provision of other services.*

"A dominant position in relation to a relevant market shall be construed as it would be in the United Kingdom under the Competition Act 1998, but with the substitution, where appropriate, of references to the Bailiwick for references to the United Kingdom."
The Competition Act 1998 utilises the definition of dominance that has developed under European Community Competition Law.

[5] Extract from Annex 3 of Billet D'Etat XXIV2001)

5. Developments in Guernsey's Electricity Sector

There have been a number of other developments in the Guernsey electricity market that are relevant to the consideration of the form, level, scope, duration and timing of any detailed price control that will be put in place. These are:

- the consideration by the States of Guernsey of the strategic generation options for the Island and the proposals arising from those considerations; and
- the submission by GEL of information to inform the setting of the level of any price control which took account of the rise in world energy prices and the increase in import costs of electricity from France.

These developments are summarised below.

5.1. States review of the Strategic Generation options for the Island

Following the decision by the OUR to freeze electricity prices in 2003, C&E commissioned a study to investigate and cost the generation options available to GEL to meet the Island's electricity needs. This study, undertaken by consultants Mott McDonald, sought to consider each of the possible generation options against a range of criteria which included:

- Security of supply;
- Environmental;
- Independence of supply;
- Diversity of supply; and
- Cost.

The Mott McDonald report was presented to C&E in December 2004. Since then the Department has consulted with other State bodies and identified a sustainable and pragmatic approach to the further consideration of these policy issues at this time. At the November States Meeting on 30th November, the States considered and endorsed the recommendations in the policy letter presented by C&E[6]. The matters the States was asked to consider were to:

i) Confirm its commitment to the existing policy of retaining sufficient sources of electricity to meet requirements, in any circumstances where two such sources (on-Island generators or the CIEG cable link to France) were unavailable at the same time (the n-2 policy);

ii) Agree that electricity pricing policies should be based on the assumption that, over the coming 25 years, generation requirements will be met by a combination of replacing on-Island generation plant and increasing the guaranteed capacity available to Guernsey through the CIEG cable link to France via Jersey;

[6] Billet D'Etat XX 2005, page 2452

iii) Agree that the above assumptions should be reviewed prior to any decision being taken on major expenditure on generating plant and/or increasing the guaranteed capacity available through the CIEG cable link to France via Jersey;

iv) Agree that the Policy Council should initiate an Energy Policy Review Group to assess energy policy in general and possible future sources of renewable energy, including tidal power;

v) Agree that the Policy Council should report back to the States on energy policy, including what investment should be made to assess renewable energy sources and how such investment should be funded.

Following the States Meeting the States agreed in general terms to the above proposals.

It is against this background that the DG has considered the application for tariff increases requested by GEL as outlined in section 5.2 below.

5.2. Submission of Information by GEL

On the 7th of July 2005 GEL formally requested approval to increase tariffs as follows:

1 December 2005	-	9.8%
1 April 2006	-	8.4%
1 April 2007	-	6.0%
1 April 2008	-	6.0%

The proposal to increase tariffs in December 2005[7] and April 2006 equates to a proposed increase of 19% in April 2006. In total the application sought to increase electricity tariffs by 34% by the end of the price control period.

GEL stated that the principal drivers for the company's request for price increases stemmed from changes to a number of factors impacting on its cost base. These included:

- changes in the price of key inputs driven by developments in international energy markets;
- identification of capital projects to meet the increasing demands for electricity by the Island; and
- the need to increase GEL's contributions to the company pension fund.

In assessing this request, the DG must consider a number of fundamental issues. These include:

- whether the tariffs requested reflect those of an efficient operator;

[7] GEL's new contract with EdF runs from 1st December 2005 and GEL's application sought to introduce the first tariff change on that date.

- whether the proposal is the best possible strategy to fulfil the various policy imperatives that have been set out by the States of Guernsey; and
- whether the tariffs, and the various costs associated with arriving at those tariffs, are justified and have taken account of the benefit to consumers gained from any investments made or proposed.

Further the DG must also consider the expectations of the company's shareholder with regard to their requirements for the level of return they expect from their company but must also assess what return the shareholder is entitled to, based on its investment in the company. Following discussions with Treasury & Resources (T&R) Department, the OUR understands the nature of the dividend requirement on the company. The implications for this are discussed further later in this document.

This paper considers in detail GEL's application from July 2005, its comments on the Draft Decision and the comments of other interested parties.

6. Responses to the Draft Decision

There were four responses received to the consultation and the non-confidential elements of these are available on the OUR website or from the OUR's office. This section summarises the responses received from Friends of the Earth Guernsey (FoEG) and IEG. It also addresses in part PwC's response, whose response is submitted in support of GEL. GEL's response, and the points raised by PwC, are addressed in detail in the remainder of this report.

FoEG were generally supportive of the OUR's proposed decision but highlighted a number of areas where it believes further work is required, particularly with regard to demand side management, a review of the charging structure, tariffs that reward environmentally friendly generation alternatives and a focus on least cost planning.

The DG welcomes the suggestions from FoEG as it is timely given the recent decision by the States of Guernsey to consider in more detail the Island's future energy policy. The DG notes that a number of the points made in its response are matters that he believes the Energy Policy Review Group will wish to consider. Therefore the DG believes that any further regulatory initiatives in this area should await the outcome of the work of the Energy Policy Review Group.

IEG did not agree with the OUR's proposed decision. Its arguments were based on its view that:

- the OUR's decision should not be made until after the NAO review of commercialization and regulation has been considered by the States and its consideration of the future generation needs of the Island and that an interim price control should be agreed with GEL;
- it believes the NAO report will include comments and views relevant to the conduct of GEL, in particular in relation to potentially anti-competitive policies on pricing and capital;
- it disagreed with the consultation process being followed for a decision that has the potential to have major implications for all energy providers;
- it does not agree with the DG's views on the asset value of the company and believes the OUR's approach to both asset value and depreciation to be flawed and that it was unclear what the OUR considered as 'capital';
- it considered the OUR's approach as seeking GEL to be run as a 'not-for profit' organisation. It sees this as dangerous in such a capital intensive business and potentially anti-competitive; and
- that the States should receive a return on capital rather than subsidise electricity prices.

Since the submission by IEG of its comments, the OUR has discussed the issue with the company. While the OUR has sought information from IEG to support its position, it has been unable to provide any further information. However IEG believes that the OUR should be able to assess its concerns without any further information as, in its view, the critical issue is ensuring that GEL makes a commercial return.

As noted earlier the DG must balance a number of competing and opposing requirements. First GEL has a mandate from its shareholder to make a commercial return on non-core activities, but the same is not expected from its core activities. Further the DG must ensure that the shareholder gets a fair and reasonable return on its investment. This is dealt with in significantly more detail in section 8 but it goes to the heart of the framing of this price control.

The DG does not agree that it is necessary to await the outcome of the States consideration of the review of commercialisation and regulation. GEL is facing increased costs for the importation of electricity from France and rising costs in its on-island generation. The DG does not believe that the company should be asked to bear these costs at this time. While the DG understands that the NAO report is due to be discussed by the States in the first quarter of 2006, until such time as that is discussed and any implications for the commercialised utilities is clear, he believes it is appropriate to conclude the price control at this time. As already highlighted this control will now run until 31st March 2007.

The DG also notes IEG's view that, as a consequence of the proposed price control decision, GEL may be placed in a position where it acts in an anti-competitive manner with respect to other energy supply businesses. The DG must assess this concern based on the information available to him. The DG has considered the information that is publicly available and observations of other similar markets. Both assessments lead the DG to conclude that the evidence does not of itself point to any anti-competitive behaviour or pricing by GEL.

Any assessment of alleged anti-competitive behaviour presupposes an undertaking to have a dominant position in a relevant market. The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001 defines the term "dominant position" with reference to the UK Competition Act. The Act is applied by the Office of Fair Trading ("OFT") and it is required to handle cases in such a way as to ensure consistency with European Community Law. The European Court has defined a dominant market position as:

> *"a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of consumers."*[8]

An undertaking is unlikely to be dominant if it does not have substantial market power, although market power is a matter of degree and not an absolute measure. In performing this exercise the DG would follow best practice as set out by the OFT.

Therefore in assessing dominance the DG would consider the extent to which an undertaking faces constraints on its ability to behave independently. This will involve a number of factors which are included within the OFT's general framework for assessing market power which sets outs a methodical and logical investigation for evidence of constraints on a firms behaviour. As part of the framework for assessing

[8] Case 27/76 United Brands v Commission, [1978] ECR207

market power the DG would be required to define the relevant market[9]. Of particular importance for any investigation would be the definition of the relevant market i.e. would it be simply Guernsey's electricity supply market or Guernsey's energy market if oil, gas and electricity were considered substitute products and thus competing directly against each other in an energy market.

On the basis of the information currently before the DG, and in the absence of more detailed information to support the respondent's argument, the DG does not believe he can determine that GEL's prices under this price control would constitute an abuse of a dominant position and/or be anti-competitive. However the DG does note the respondent's view that GEL's price control should be interim pending the outcome of the States consideration of the NAO review of commercialisation and regulation. As already noted, this price control is now being set for 15 months.

PwC's comments, although not submitted as part of GEL's expert opinion on the proposed price control are, as the DG now understands it, submitted in support of GEL's position and are therefore addressed in more detail as part of the main discussion on the key elements of the price control decision in the following sections. However PwC did caveat its response as follows:

"The comments we make are general in nature as we do not know the specific details of GEL's cost base. We apologise if this leads us to comment inaccurately in the specific context of the Guernsey electricity industry."

PwC hoped that "*in spite of our [PwC] limited understanding of the specificities of Guernsey's electricity system, our comments will bring you a fresh and helpful perspective on regulation principles and that these comments may influence your final Price Control decision…."*

[9] OFT (1999) Market Definition Competition Act Guideline

7. Principles of GEL's Price Control

7.1. Form

Draft Decision

In document OUR 05/23 the DG proposed to impose an incentive regulation form of the price control (i.e. RPI-X or RPI+Y) to regulate GEL's retail prices.

Comments Received

GEL state that they were unclear as to the differences between "RPI-X" and "RPI+Y" as forms of incentive regulation, but assume that the DG's draft price control decision of RPI-0.9% to be of the form "RPI-X". GEL note that a large proportion of its cost base relate to electricity purchase costs (oil and import) and these are not determined by RPI and could not reasonably be expected to reduce by RPI-0.9% from current levels. GEL believe that if the DG imposes an RPI-X form of price control then it is essential that there is a correction mechanism for changes in electricity generation costs and wholesale electricity purchase costs.

GEL propose a simple correction mechanism to account for the variability in purchase costs (i.e. fuel oil and wholesale imports) as follows:

- before the end of each financial year (e.g. by December) GEL would submit to the OUR a comparison of the actual purchase costs in the year to date (plus its best estimate of the expected actual generation costs for the remainder of the current year). This information will allow direct comparison with the forecast used for the purposes of setting the original estimate of the price control;
- GEL would also provide its best estimate of future costs for the following year;
- the difference (positive or negative) between these figures and the values assumed when setting the control in 2005 will be added (or subtracted) to the purchase costs originally forecast for the following year of the price control; and
- an adjustment to customer prices will then be agreed by the OUR which leaves GEL in the same position had the original OUR forecasts been correct.

GEL proposed that the formula for such amendments would be applied so as to leave GEL with an RPI-X incentive form of regulation over all other elements of costs.

DG's Position

The RPI-0.9% price control in the Draft Decision is an incentive regulation price control in the form of "RPI-X". For the avoidance of doubt RPI is the Retail Price Index and X is a specified number. Prices fall in real terms under RPI-X and increase under an RPI+Y control. As noted by Professor Littlechild *"the controls can be used even where prices need to increase."*[10] The DG further notes that GEL's own tariff application for price changes can be expressed in the form of "RPI+Y" for each of the

[10] Joint UNDP / World Bank Energy Sector Management Assistance Programme (ESMAP) drafted by Stephen Littlechild "Privatisation, Competition and Regulation in the British Electricity Industry, With Implications for Developing Countries" February 2000.

three years of the proposed price control i.e. requesting nominal increases in prices of 9.8%, 8.4%, 6.0% and 6.0% through to 1 April 2008.

The DG however is aware that a large proportion of GEL's cost base relates to electricity purchase costs (oil and import) and these input costs are driven by factors beyond simply RPI. Future operating costs for the purposes of estimating allowable revenue have by necessity been forecast and there will clearly be deviation between forecasts and actuals over time. The DG agrees therefore that some form of pass through mechanism for electricity purchase costs which are outside the company's control may be appropriate. However any such mechanism must be structured in such a way as to provide incentives for the company to act efficiently rather than simply aim to pass costs through directly to customers without seeking to minimize those costs. This is dealt with further in section 10.

DG's Decision

The Director General will use an incentive regulation form of the price control (i.e. RPI-X or RPI+Y) to regulate GEL's retail prices.

7.2. Scope

Draft Decision

As GEL had not proposed different price increases across its different tariffs and given the advantages of transparency, the DG proposed that any price change was applied consistently to all tariffs and listed all those services that would be price-controlled.

Comments Received

GEL agreed that there should be no tariff rebalancing at the current time, although noting that in some time in the future this may be appropriate. GEL also agreed with the scope of the control and the associated proposed list of tariffs. GEL noted however that the list was not complete as number of products were missing.

DG's Position

The DG welcomes GEL's constructive comments on the scope of the price control. In the light of the comments received the scope of the price control will include the following services:

- Standard Tariff:
  - Standing charge; and
  - Unit charge.

- Super Economy 12:
  - Standing charge;
  - Low rate unit charge;
  - Normal rate unit charge.

- Industrial Economy Tariff – High Voltage Supplies:
    - kW charge (April-October);
    - kW charge (November-March);
    - Low rate units;
    - Normal rate units;
    - Installed capacity charge; and
    - Power factor charge.

- Industrial Economy Tariff – Low Voltage Supplies:
    - kW charge (April-October);
    - kW charge (November-March);
    - Low rate units;
    - Normal rate units
    - Installed capacity charge; and
    - Power factor charge.

- Maximum Demand Tariff – High Voltage Supplies:
    - kW charge (April–October);
    - kW charge (November-March);
    - All units;
    - Installed capacity charge; and
    - Power factor charge.

- Maximum Demand Tariff – Low Voltage Supplies:
    - kW charge (April-October);
    - kW charge (November-March);
    - All units;
    - Installed capacity charge;
    - Power factor charge.

- Heat Pump Tariff:
    - All units.

- Non-Peak Tariff:
    - Standing charge; and
    - All units.

- Superheat Tariff:
    - Standing charge; and
    - All units.

- Public lighting Tariff:
    - Standing charge; and
    - All units.

- Boiler Tariff:
    - Standing charge; and
    - All units.

DG's Decision

The Director General will apply the same percentage price changes to all services listed in section 7.2 of this paper within the scope of the price control that will be applied to Guernsey Electricity Limited.

7.3. Relevant price control period

The Draft Decision had proposed that this price control would run until March 2009. This was intended primarily to follow GEL's contract with EdF for imported electricity.

Since the conclusion of the period for comment the OUR has met with GEL, T&R (as shareholder) and C&E (which has responsibility for energy policy). These discussions have identified particular issues with the setting of tariffs levels for GEL. The proposed price control is designed to ensure that GEL has sufficient resources to both meet its requirements over the price control period and ensure that cash reserves are built up in a structured manner. The OUR's Draft Decision proposed calling on GEL's cash reserves in a limited manner over this period. This would ensure that GEL has sufficient cash to fund its business. However the proposed control has a negative impact upon GEL's profit and loss account as its P&L account does not reflect the contribution that its reserves make to its source of funding and as a consequence does not properly reflect the financial health of the company.

Essentially while the collection of cash from customers earlier than is needed (referred to as pre-funding by GEL) has a number of benefits, its use in the manner proposed in the Draft Decision impacts negatively upon the perception of how well GEL has performed financially. However, the company does have access to its pre-funded reserves to meet some of its requirements. Therefore overall the company is financially sound but against one test (its Profit & Loss account) the company has a negative balance.

While the P&L is only one test of a company's financial position the DG does recognise that there may be perceptions formed of the financial position of the company from showing losses for any significant period. Equally, however, he does not believe that GEL's customers should be required to pay an additional £3-4m per year in higher tariffs just to correct this particular issue. Customers have contributed through their electricity bills for the purpose of funding capex and the DG believes they should realise some benefit from this.

The DG recognises that this issue cannot be resolved in isolation by the OUR. He believes a fundamental review of how pre-funding works and is presented on GEL's accounts in a manner that reflects the overall health of the company is needed. The expectation of the States as shareholder and further assessment of the return the shareholder is entitled to also needs to be clarified. It will not, however, be possible to resolve these issues in time for a price control to be set that would allow GEL to increase tariffs on 1st January 2006. Therefore the DG has decided to set a price control that will run from 1st January 2006 to 31st March 2007 (15 months).

The DG believes that this is a pragmatic solution and should ensure that the wider issues raised by this price review can also be considered further. The DG does not believe that this will have any significant impact upon GEL over this period. Further details on the issues raised are discussed in section 8 and the approach the DG intends to take to address this issue is outlined further in section 13.

DG's Decision

The Director General will set a price control for GEL Limited for the period 1st January 2006 through to 31st March 2007.

7.4. Monitoring and Compliance

The aim of the compliance procedures will be to ensure that GEL meets its obligations under the price control. This overall aim has the following objectives:

- to minimise the resources required for compliance and monitoring, both from GEL and the OUR; and
- to ensure maximum transparency and certainty for GEL to make its pricing decisions.

The DG wishes to ensure that the requirements to demonstrate compliance with the price control should be as straightforward as possible. Due to the nature of the final price control decision (i.e. a 15 month period) – demonstrating compliance can now be simplified. GEL will now be required to demonstrate that prices increasing after 1st January 2006 and 1st April 2006 do not exceed RPI + 1.7% on each occasion, where RPI is the latest available 12 month figure as published by the Treasury & Resources Department. The 1st January 2006 price change is based on an RPI figure of 3.8%.

The Director General will set a price control where prices after 1st January 2006 and 1st April 2006 do not exceed RPI+1.7% on each occasion.

8. Allowable Revenue

Introduction
The first regulatory price controls for most of the formerly nationalised UK utilities were developed as part of the process of moving those companies from state ownership to the private sector. The price controls for these companies, mainly of the RPI-X type, relied on the incentives on the private owners to maximise profits and returns to shareholders. Given relatively mature markets the general response to the incentives of these price controls was to reduce costs which if realised to a greater extent or earlier than set by the regulator were effectively profits over and above what was provided for in these price controls.

Such efficiency gains would at some stage be passed onto the customer but as these were only revisited at the start of the next price control this time delay provided an incentive for the companies to achieve efficiency gains earlier rather than later and therefore realise higher profits. Commentators have argued that it was these incentives on shareholders and management which generated the substantial cost reductions over time, more so than the price cuts often required by the regulator. Section 10 provides further detail in this area.

However unlike most regulated utilities in the UK, GEL is state-owned. The regulator must take into account the extent to which the same profit incentives that underpin the controls of privately owned regulated companies can reasonably be expected to apply to GEL as a wholly States-owned company. If the profit incentives are not strong or the management incentives not well developed, the pressures placed on GEL by the OUR's price control may lead to a diversion of resources, such as lobbying for States support to change the level of price control or make good any shortfall through inefficiency given the importance of the electricity provider to the viability of the Island. There is also a risk that the incentive to maximise dividends and shareholder value may be less for GEL and its shareholder than for a private sector company since the States may have other public policy objectives besides maximising investment returns.

There may also be areas in which the operation of a wholly States-owned shareholding for GEL may differ from a private sector shareholding for a typical regulated company. For example:

- the commitment to public ownership removes the discipline on management arising from the threat of takeover;
- the States is also GEL's banker in that it can make use of the cash reserves built up by GEL;
- the States as shareholder imposes a dividend requirement on the company in advance of the financial year and therefore dividends to shareholder are treated as an input into GEL's financial planning rather than as an output to reflect management's performance in contrast to most companies where management rather than shareholders set the dividend policy;
- it is unclear what incentives, if any, are on the company to meet, or outperform, this dividend target and what penalties exist for underperformance; and

- the share price of most regulated companies (or their parent company) are quoted on a stock exchange enabling shares to be freely bought and sold together with the scrutiny of financial analysts who advise investors on the performance and profits of these companies. By contrast, there is no market or transparent price for GEL's shares and there is, therefore, limited independent financial analysis of and commentary on GEL's performance and prospects.

The States has however attempted to replicate the disciplines of private sector shareholders in a number of ways. It has commercialised GEL through its incorporation in 2002 which puts GEL on a similar legal footing to other companies and, like other shareholders, the States will have influence on the appointment of Board members. The States may also receive a return on its shareholding through dividend payments by the company. In accordance with private sector shareholder objectives, the States would be expected to seek the greatest potential improvements in efficiency to maximise the present value of these dividends. As noted by other commentators, the extent to which potential improvements in efficiency are realised will depend to some degree on the shareholder's ability to monitor the effectiveness of management.

The level of allowable revenue

The appropriate level of tariffs for GEL is based on a view of the level of income, or 'allowable revenue', required by the company to meet the commitments of an efficient operator over the period of the price control.

As already discussed, the States as shareholder can have different priorities to that of a private investor. This price control provides for States policies in a number of areas that take account of priorities other than only economic efficiencies. This requires an additional level of analysis and consideration beyond the period of the price control itself. A policy of no borrowing by GEL which the States as shareholder wishes to maintain, as well as the security of supply policy for the Island, are particularly relevant.

The policy of no borrowing has implications that are not a feature of traditional price controls in that the allowable revenue over the price control must also take account of the need to ensure GEL's cash reserves are always adequate to meet its efficient capital expenditure needs. This requires consideration of efficient capital expenditure several years into the future. In the absence of such a policy the regulator would not need to take into account capital expenditure needs into the future to the extent required in the case of GEL. In a competitive environment, market forces would also have a stronger influence on decisions relating to capital structure by GEL. The security of supply policy on the other hand has implications not only for the future capital investment needs of GEL but also for the level of GEL's ongoing operating costs given the scale of generation backup required to be immediately available but which for much of the time is not utilised.

Derivation of GEL's allowable revenue for the period of the price control, and therefore the extent of any price change, entails consideration of a number of factors, namely:

- Regulatory opening asset value;

- Regulatory depreciation schedule;
- Capital expenditure;
- Operating costs; and
- Cost of capital.

Each of these issues is discussed further in this section.

8.1. The Regulatory opening asset value

Draft Decision
The DG proposed that no return on GEL's regulatory asset value should be included within its allowable revenue on the basis that customers had contributed to the cash reserves built up by GEL which were drawn upon to fund historic capital expenditure.

View of respondents
GEL does not agree that its existing capital base was funded by cash reserves built up through a premium on the price of electricity to customers. In its view, while its capital assets were historically funded from its cash reserves, these were built up through GEL's retention of a reasonable level of profits. GEL's view is that it is no different to a private sector company which finances investment from its cash balances. GEL's view is that in this position such a company is said to finance such capital investment from retained earnings and not from customers. GEL argues that the States as shareholder should therefore be entitled to a commercial return on these retained profits now reflected in the value of the company's assets as this is the traditional approach of other regulators setting price controls. This asset base is valued at over £90m on an historical cost basis.

DG's Position
In setting the level of a price control, the general practice is for regulators to base the allowable revenue on the sum of:

- An appropriate return;
- A regulatory depreciation schedule; and
- A forecast of the efficient levels of operating costs

An appropriate return (essentially the capital cost) is calculated by multiplying some form of regulatory asset base by a cost of capital. The appropriate rate is based on the return capital providers require on the funds they provide to the business. The regulatory asset base should be the sum of capital provider funds invested in the company.

An issue for this price control is whether a suitable proxy to the sum of capital provider funds is available on which to base the opening regulatory asset base. Examples that have been suggested are measures based on accounting estimates of the historic cost of the assets acquired by GEL or estimates of the value of the assets to the business based on some form of current asset cost or modern equivalent valuation. Relevant to the OUR's approach in the Draft Decision to this issue was the capital structure the States Electricity Board (SEB) chose to adopt during much of the period

prior to commercialisation and which GEL has maintained, namely the building up of cash reserves to fund future capital expenditure. The funding of future capital expenditure was evidently the purpose for which these funds were built up as suggested in public statements:

"*The general reserve is required to fund the asset base of the Board*."[11]

"*Our profit enables us to continue to prudently build reserves to help in funding our next tranche of capital investment*"[12]

The OUR Draft Decision suggested that since income from customers was the only material source of funds from which these cash reserves were built up to pay for GEL's assets, to then increase GEL customer prices to allow a return on the company's assets would mean that customers would essentially be meeting the cost for a return on capital funds which they in fact provided. A more precise description of the OUR's position is that under GEL's proposals, the customers of today would be required to meet the cost of capital provided for assets already paid for by the customers of the past. The OUR has noted the view of GEL's regulatory experts that its interpretation of the implications of GEL's capital funding is unprecedented. However, given the specific context of prices controls and the evidence available there are circumstances in which regulators have arrived at a position similar to the OUR in its Draft Decision. For example Postcomm, when considering Royal Mail's price control for 2003-2006, adopted an approach which meant that:

"… current customers do not contribute to the cost of historical expenditure, which, for this price control, is assumed to have been fully funded already."[13]

Also, given the circumstances and evidence available to the OUR, the DG proposed that the opening regulatory asset value was zero on the grounds that the sum of capital provider funds was assumed to be zero. This is consistent with the reasoning applied by Postcomm which stated that:

"If [the] proposition… that customers have already paid fully for the entirety of capital investments made… is correct…then the fair treatment for consumers of the opening capital investments is to treat them as fully repaid and having no regulatory value."[14]

GEL's view is that the assets taken on at the point of commercialisation in February 2002 with additions and disposals to March 2004 have already been audited independently and reported to all parties, which is in GEL's view an appropriate basis on which a regulatory return should be derived. The regulatory accounts for GEL as at 31st March 2004 report core business assets with a net book value of £94m as at that date on an historic cost basis (£92m as at 31st March 2005). In GEL's view its asset base was financed from retained profits to its shareholder who provided the capital funds for the business.

[11] SEB's annual accounts for 1996/97, page 19
[12] Guernsey Electricity Limited, Annual Report 2003/04, page 3
[13] Postcomm decision on Royal Mail's tariffs, March 2003 decision, paragraph 3.7
[14] Postcomm decision on Royal Mail's tariffs, February 2003 final proposals, paragraph 3.14

It is GEL's contention, supported by its experts Horton4Consulting, that in order to satisfy productive and dynamic efficiency it is necessary that an investor (the States) should have the expectation of recovering the cost of capital on efficient investment since its investment has been financed from retained earnings and not financed by customers. GEL concludes that the OUR is not correct in its assumption that customers have financed the existing assets in advance and a more traditional approach to the price control should be adopted by the OUR, in particular that a return on the value of its assets as reported in its accounts is an appropriate approach in a commercialised environment. GEL put forward its proposals for a price rise based on a return it regarded as lower than a commercial return and argued that this was because it had taken into account the impact on the customer in deciding to do so, consistent with the instructions provided to it by the States, namely:

- *deliver improved efficiency in fulfilling the requirements of the Public Supply Obligation imposed under the regulatory regime whilst drawing a balance between seeking a commercial return on the resources employed and the effect on the community of any increase in charges which may result; and*
- *achieve as soon as is practicable an appropriate commercial return on the resources employed in the provision of other services.*

The DG has considered this view put forward by GEL and recognises that further expansion on his position should be included in this decision. Given the absence of debt by GEL the only relevant capital provider in this instance is the shareholder. The DG's approach to the value of the opening regulatory asset value is that the shareholder should be entitled to a return within the allowable revenue provision based on the sum of the capital provider's funds invested in GEL (and its predecessor) or suitable proxies to this. The matter which the OUR must therefore assess is the nature of the capital undoubtedly provided at some stage to acquire the electricity provider business and any subsequent funds provided by the shareholder on which the business relied to build its capital base over subsequent years.

The DG does not agree with the view put forward by GEL and its expert, Horton4Consulting, that the traditional approach to setting the opening regulatory asset base is by reference to the value of the assets as reported in the accounts. The DG believes that the traditional approach, at least in the UK, is to set the opening regulatory asset base by reference to the funds actually provided by the shareholder. This approach is consistent, for example, with that adopted by another of GEL's experts, the former UK electricity regulator, Professor Littlechild in 1994:

"*It seems to me appropriate to have regard to the money actually paid to purchase a company, not just to the value of assets in the accounts.*"[15]

Since GEL has been commercialised but not privatised, reliance on a market-determined flotation price is not available to the DG in determining this issue. The use of market value has been significant in the UK model since, as already noted, the first regulatory price controls for most of the formerly nationalised UK utilities were developed as part of the process of moving those companies from state ownership to

[15] Offer (Aug 1994), *The Distribution Price Control: Proposals.*

the private sector. In many instances this involved a market-determined flotation which provided a basis for the calculation of a regulatory asset value on which a return could be based. In the absence of such a market value, in determining a proxy for the sum of capital provider's funds (i.e. the opening regulatory asset value), a number of issues require consideration. Regulatory precedent provides a valuable general indication of the robustness of approaches available to make such an assessment.

Historic cost accounting as a proxy for the sum of capital provider funds

One approach to estimating the sum of capital provider funds is by taking the accounting value of the business' assets published in its financial accounts. However the view expressed by GEL that its regulatory asset value of over £90m is a justifiable basis for a regulatory return since that is the value of the assets reported in its financial accounts is not a position that is well-supported by regulatory precedent or by two prominent regulatory experts whose views it has put before the OUR and members of the States.

For example the principal of GEL's regulatory experts, Horton4Consulting, has stated before an inquiry that:

"*I think that on long-lived assets the use of historic cost values is most unlikely to give a sensible answer…; I don't think a straight-forward historic cost value is a very sensible guide and so that most company accounts are not very sensible guides*."[16]

The view of another of GEL's regulatory experts, Professor Littlechild, cited above would also suggest that historical cost accounting is not a good proxy for the opening regulatory value where more direct evidence of capital provider funds is available.

Current cost accounting as a proxy for the sum of capital provider funds

An alternative approach to valuing the sum of the capital provider funds invested in GEL and its predecessor is on the basis of the value of assets to the business (current cost accounting or modern equivalent value for example) which has also been considered by the OUR. In this approach the replacement value or the current value of its assets is considered and takes into account what it would now cost to replace GEL's assets on some comparable basis by reference to their economic value. There are some arguments for setting the opening regulatory value at a current cost accounting based value in order to promote market entry, for example, since the allowed revenue would equal that attainable by a new competitor. This approach can reflect variables such as general inflation and effects such as technical progress.

However, in the context of this price control such a justification is weakened by the apparent lack of competition to GEL on any competition-based assessment as discussed in section 6, while the main drawback of this approach is that marking up assets to reflect their value to the business might be considered by some to be too generous to its shareholder. Such an assessment is also not straightforward given that assets such as generation equipment may for example be worth less than their

[16] New Zealand Commerce Commission Conference Gas pipeline inquiry draft report – Geoffrey Horton

purchase price because of technological developments while other assets such as land may have escalated in value.

In terms of regulatory precedent, in 1994 the then electricity regulator Professor Littlechild rejected arguments put forward by the UK Regional Electricity Companies at the time of privatisation that current cost accounting was the best measure for valuing the assets of their companies[17]. Also, during the privatisation of the UK railways the rail regulator had to consider what value should be given to the opening regulatory asset base and stated his intention to use some form of privatisation value approach rather than the replacement cost of the assets in the review of Railtrack's charges in December 1997. This position was confirmed in the subsequent consultation document in July 1998 and then in the final decision published in December 1998. Conversely there are also examples, for example in Australia, where the current cost accounting approach was found to be below the market value of the business, and in the UK some regulators have considered a current cost accounting approach when seeking a suitable proxy for the sum of capital provider funds.

However the lack of compelling evidence to suggest that either of the above approaches provide a reliable basis on which to approximate the sum of GEL's capital provider funds has led to DG to consider if evidence on what the shareholder has provided to the business is better informed by a clear historic trail of evidence identifying the levels and timing of investment of funds by the shareholder. For many regulators the impracticality of doing so, given that the relevant economic activities they regulate have been in existence for some time and in some cases for centuries, obviously made this less practical as an alternative. However the OUR's research suggests that in the case of GEL this evidence may be available.

Historical evidence on sources of capital provided to GEL and its predecessor

In moving from a situation where the Island's electricity provider was run by a private business to one provided by the States Electricity Board and to the current situation where GEL is commercialised but not privatised, an assessment of what financial capital has been provided by the shareholder, how much has already been returned to the shareholder and how much may the shareholder reasonably expect in the future are relevant considerations. To avoid making assumptions about the past the OUR has examined the sources of funding of the electricity provider from the point at which the States first acquired the business to the present day. The OUR has sought this evidence from the documented decisions and financial accounts published in States' documents. These include those relevant to the decisions that informed the acquisition by the States of the business known as the Electric Light and Power Company Limited, as well as the financial accounts reported by the business since that point in time.

The Billet D'Etat, Mardi, le 26 Juillet 1932 records that investigations and inquiries were made by the Board of Administration as to the price that would have to be paid by the States to the company in the event of the States electing to exercise its option to take over the undertaking. The valuers gave as their opinion:

[17] OFFER (August 1994), The Distribution Price Control: Proposal

"..that the fair market value of the works which have cost £291,401, does not now exceed £225,000; hence the 'just and reasonable sum' to be paid for these works should not exceed £260,000 when the 15 per cent has been added, as required by Clause 17 of the Concession."

The proposal was to provide these funds through a loan arrangement which would be repaid together with interest by the States Electricity Board, rather than through funds provided by the States. As part of this proposal the Board of Administration's Accountant included his estimate of the value of the undertaking. In providing an estimated market value, given the States' approach to funding the purchase, he also set out his view of the likely price reductions and the nature of the purchase. This statement would appear to be significant as an indication of the States understanding of the implications of how they planned to acquire the funds to purchase the business:

"… it must be borne in mind that in addition to the reduction in the unit charge, the consumers would in effect also be purchasing the undertaking, whether it be over a period of 30 years or 40 years."

The Statement of Accounts and Balance Sheet of the States Electricity Department for the period from the transfer of the undertaking on 1st July 1933 to 31st December 1933 shows a liability on the balance sheet of £306,000 which is recorded as "*a States of Guernsey 3¾ % 1933 loan redeemable 1963"*. The Net Revenue Account also records that the SEB paid the interest on this loan. The purchase of the Electric Light and Power Company Limited was therefore recorded as a loan on the accounts of the SEB and the interest payments were met by the SEB and paid back in full by the SEB from revenues collected from customers. It would therefore appear that the States provided a loan to fund the acquisition of the business that was paid for by electricity customers between 1933 and 1963. This is consistent with the view of the Board of Administration Accountant's assessment of the implications of the manner in which the business was to be acquired, namely that "*consumers would in effect also be purchasing the undertaking.*"

Four subsequent loans are then recorded in the balance sheet of the SEB in its accounts for the year ending 31st December 1951 to the amounts of £80,000, £127,000, £90,000 and £43,000 (redeemable 1959/79, 1960/70, 1961/81 and 1961/81 respectively). In seeking approval from the States the Billet D'Etats of 28th June 1950 and 13th December 1950 set out the case for these additional loans. These documents make it clear that the charges of loans by the SEB are borne by the Department and not by the Taxpayer[18]. The allocation of the sums sought at the time (subsequently revised) was for:

"*the sum of £133,000 for capital expenditure derivable from loan for 1951 and £90,000 for 1952*."

[18] Billet D'Etat, 13 December 1950, page 1127

The Finance Committee, in response to this application by the SEB states:

"*I draw a distinction between capital required by a self-supporting Trading Department and capital required by a Committee whose spending is supported wholly or partly by the General Revenue. The only question in regard to the former is whether or not the capital required can be found… The Electricity Department should be able to earn the necessary loan charges either at once or in a very short time*."

The SEB's net Revenue Account for this financial year records a loan charge of interest which corresponds to the interest on these loans indicating that the SEB continued to meet the interest charges on these loans from revenues collected from customers rather than the States from general revenue. These two early periods of funding for the acquisition and subsequent need for investment in the post war years would appear to have been provided entirely in the form of loans which are recorded on the accounts of the SEB. The source of funding does not therefore appear to have involved any material provision of funding by the States as shareholder.

Since these early stages of the business owned by the States a number of further loans have been taken out by the SEB and capital projects have obviously taken place. One of the most significant capital projects was the installation of a cable link to France via Jersey authorised on 25th September 1996, of which the SEB's share of cost is reported as £28,069,422 in its financial accounts for the year ended 31st March 1999. This project was also authorised by the States to proceed subject to it being funded from the SEB's resources and without the need to exceed its authorised borrowing limit. This is consistent with the purpose of the cash reserves of the business as stated in its annual accounts, namely:

"*The general reserve is required to fund the asset base of the Board*."[19]

Further the Chairman's statement in GEL's 2002/03 annual report states that:

"*During the year ended 31 March 2001, we invested £24.3m in new plant and equipment, £19.2m attributable to the cable link. This project has been successfully completed within budget, and was funded totally from Guernsey Electricity's reserves, without the need for borrowing*."[20]

The purpose for which the cash reserves with States Treasury are built up would not appear to have changed since commercialisation, as is evident in statements by GEL in its Annual Report for 2003/04 which states that:

"*Our profit enables us to continue to prudently build reserves to help in funding our next tranche of capital investment.*"

Therefore the evidence above suggests that the States as shareholder has not to any material extent acted as a provider of capital funds to the business.

[19] Note 11 to 1998/99 Report and Accounts
[20] SEB, annual report and accounts 2000/2001, page 3

DG's Decision
Given the above evidence the DG does not propose to base the opening regulatory asset value either on an historic cost or current cost basis. The historic account available to the DG provides compelling evidence that although the traditional approach would in principle entitle the shareholder to a return if and when it were to provide funds to the business, at present the sum of funds provided is essentially zero and the shareholder is therefore not entitled to a return.

This does however raise questions as to whether the intent of commercialisation is entirely realised in these circumstances, although, as noted in the introduction to this section, given that the incentives on privatised companies arise to a significant extent from the rewards of achieving efficiencies over and above that required by the regulator, commercialisation continues to have the potential to achieve significant rewards for the shareholder and customers. Further consideration of this area appears prudent however and the DG therefore proposes that before a final opening regulatory asset value is set this issue should be examined further. He proposes to establish an expert panel to examine all of the relevant evidence available and for its consideration of the issues identified by this current price control to further inform the OUR's future price control.

In light of the above provisional views on the value of the opening regulatory asset value there is a case to provide for a level of return to the shareholder for the period of this price control until certain issues have been considered more extensively. A basis for doing so is therefore set out in Appendix B and a level of return to the shareholder is therefore allowed within GEL's price control for the period of this price control. Given the short time period and the level of such a return there would not appear to be a significant risk that the need to balance the interests of customer and GEL and its shareholder would be compromised by such an approach.

8.2. The Regulatory Depreciation Schedule

Draft Decision
The DG proposed a depreciation schedule based on the actual capital expenditure of the business. However it was proposed that this expenditure would not be met entirely from allowable revenue as cash reserves would make a contribution to this expenditure consistent with GEL's rationale for building up these reserves and the view that customers had a claim to those funds.

Over time the actual capital expenditure of a business generally equates to its accounting depreciation costs. In the interests of smoothing the impact on customer prices of large changes in capital expenditure, regulators can provide for an average depreciation allowance within a business' allowable revenue over the period of a price control. An accounting depreciation approach is an option some regulators employ to this end. It was however apparent that over the three year period of the price control proposed in the draft decision, a regulatory depreciation schedule using an accounting depreciation approach would have exceeded the actual capital expenditure incurred by GEL by some margin. An accounting approach would therefore have implied higher prices to customers when GEL did not require funds at that level for this period and would continue to have more than adequate cash reserves to meet its future capital

expenditure requirement given projected cash flows and the point in its investment cycle. In the draft decision the DG therefore proposed that given a revenue allowance based on GEL's actual capital expenditure he did not intend to provide for an additional level of revenue to GEL over and above its actual capital expenditure projections within a regulatory depreciation schedule.

View of respondents

Some respondents have interpreted the proposal not to allow an additional depreciation allowance as no provision for a depreciation schedule within allowable revenue. As set out above, this is not the case, however the funding to meet this cost was proposed to come from a combination of allowable revenue and draw down from cash reserves rather than allowable revenue only.

DG's Position

The DG's consideration of the regulatory depreciation schedule is informed by the need to invest in capital expenditure to maintain the economic value of GEL's current asset base as well as modernise and expand the capacity of the business to meet the growing energy needs of the Island. As discussed there are a number of approaches to provide for a regulatory depreciation schedule in a price control, including the more standard accounting approaches where depreciation is calculated by dividing the Regulatory value by a notional average asset life. Given the earlier evidence cited in this decision on the source of funding for the assets of the business, a depreciation schedule based on a form of average charge to customers for those assets would seem an inappropriate basis for a regulatory depreciation schedule. In these circumstances the DG's view is that a regulatory depreciation schedule based on the value of GEL's assets as stated in the business' financial accounts is not appropriate.

The DG is proposing to include within GEL's allowable revenue an amount that is lower than GEL's accounting based depreciation schedule to meet its future capital expenditure costs. The DG is also proposing that not all of the capital expenditure costs accepted will be included within GEL's allowable revenue over the period of this price control given the contribution of its cash reserves. The concept of the traditional depreciation schedule is therefore not wholly applicable to this price control as cash reserves as well as GEL's allowable revenue will be expected to fund future capital expenditure needs, as opposed to an approach where allowable revenue (on some smoothed basis) provides entirely for all capital expenditure requirements.

GEL's investment needs over the medium term are relatively low. Therefore while GEL will need to draw from its reserves over periods of this price control it will make significant contributions to its cash reserves over the years leading up to the next period of major investment given the relatively lower average capital expenditure it has forecast for this period and cash flow forecasts based on conservative price changes. The use of these funds for capital expenditure is wholly consistent with GEL's own public statements as to the purpose of these cash reserves, namely to fund future capital expenditure.

The most accurate level of allowance is likely to be based on a projected efficient level of capital expenditure. However, the profile of capital expenditure for a business such as GEL is not smooth and without a smoothing mechanism the implications of this for the volatility of the customer price path over time would be significant. The

Draft Decision on the level of cash reserves held by GEL suggested consideration would be given to utilisation of these reserves to the benefit of customers for such smoothing, subject to adequate levels of cash reserves maintained throughout. The implication of the DG's approach is that in some years the level of allowable revenue will be below the sum of: GEL's operating expenditure, actual capital expenditure needs and return to shareholder; since the cash reserves are in fact a further source of funds for that capital expenditure. The converse will also be true.

It is also important to understand that even under a regulatory value approach, when cash reserves fall because capital expenditure exceeds regulatory depreciation this constitutes a net injection of funds from capital providers, which causes an increase in the regulatory asset base. Capital providers are therefore not disadvantaged, because this increase in the regulatory asset base feeds through into greater future returns. Conversely, when cash reserves rise because capital regulatory depreciation exceeds capital expenditure, then this causes a decrease in the regulatory asset base. The appropriate return is therefore automatically adjusted in such a way as to ensure that capital provider rights to a return are met regardless of the regulatory depreciation schedule chosen. The choice of regulatory depreciation schedule is therefore driven primarily by considerations such as the resulting path of future prices and year on year financial viability.

In the case of GEL, this latter consideration has been interpreted as facilitating GEL's no borrowing approach by ensuring that cash reserves do not fall to too low a level. The Draft Decision suggested a prudent level of cash reserves of around £17m by 2016/17 in money of the day (£10m in real terms). This was based on three criteria, namely:

- cash reserves were maintained at a level sufficient to fund all forecast capital expenditure over the period of the price control (i.e. to the end of 2008/09):
- that cash reserves were sufficient to fund the next period of major capital investment (2009/10 to 2016/17) after the price control: and
- an adequate level of cash reserves were available at the end of 2016/17 on which the next period of build up of these reserves would begin.

In assessing what constitutes a prudent level of cash reserves, the DG notes that GEL's predecessor, the SEB, allowed cash reserves with States Treasury to fall as low as £4.6m (31st March 2001) while GEL has over previous years reported significantly lower levels of cash reserves than those proposed in the Draft Decision. In the DG's view such evidence significantly weakens GEL argument that cash reserves should be sustained at current levels regardless of its actual capital expenditure.

DG's Decision

The Director General proposes to include an allowance for capital expenditure in GEL's allowable revenue by reference to the forward looking capital expenditure proposed by GEL.

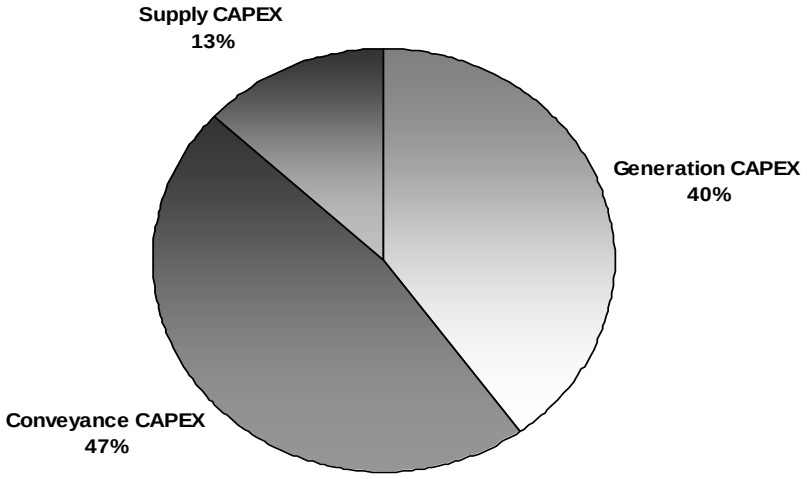
8.2.1. Capital expenditure

Market developments present significant challenges to a business such as GEL as technologies develop, customer demand increases and input costs change. In particular, the nature of electricity generation as well as conveyance of electricity from generation source to the customer require long term investment decisions involving substantial capital costs.

GEL must also reconcile a number of competing priorities in the area of States policy. The States require that a range of priorities are taken into account through licence conditions imposed on the generation, conveyance and supply activities of GEL on the island. For example, Licence condition 35.1 requires GEL to contract for electricity and ancillary services at the best effective price reasonably obtainable. Licence condition 35.3 also requires GEL to have regard to any considerations liable to affect its ability to discharge its obligations under the licence in the future, including the future security, reliability and diversity of sources of electricity available for purchase.

GEL proposed to spend approximately £9.4m on capital expenditure over the period of this price control. Figure 1 below illustrates the proportion of expenditure in each of the three main categories of capital expenditure.

Figure 1: GEL Proposed CAPEX over the price control period



The OUR has considered these proposals to assess whether there is capital investment that should be excluded from GEL's allowable revenue on the basis that the benefit to customers is not adequately justified.

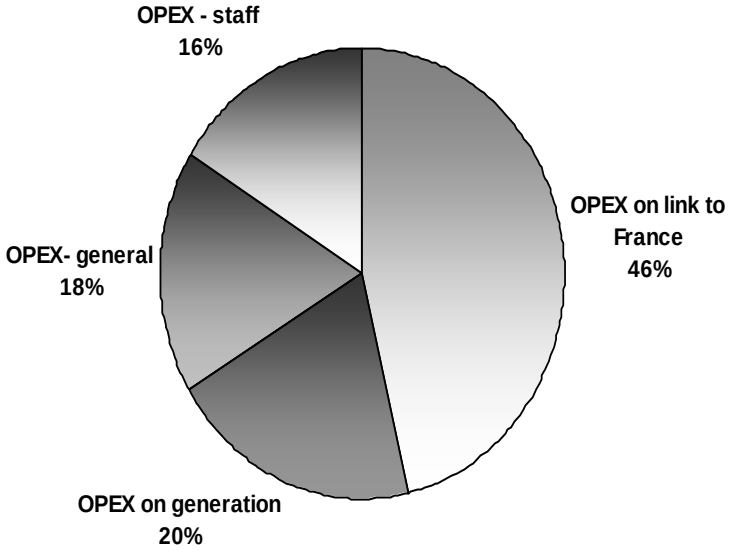
In undertaking this element of the price control, the OUR's position is one of assessing the benefits to the consumer of certain investments. The reasons for this are straightforward; without an assessment from the consumer's perspective, it is possible for a company to justify any investment. However, a particular investment may be made for reasons that are not directly related to the provision of electricity nor needed to support that core activity. This provides a fundamentally different level of review than that which the company or its Board may have undertaken.

The DG has considered in greater detail three areas of capital expenditure, namely automated meter reading (AMR), future generation and investment in renewables. These are discussed further in Section 9.

8.3. Operating costs

GEL proposed to spend approximately £37.9m on operating its business over the period of this price control, before additional pension costs. Figure 2 below illustrates the proportion of expenditure in each of the main categories of operating expenditure.

Figure 2: GEL Proposed OPEX over the price control period



The proposals by GEL for the period of the price control that the DG has considered in more detail are set out in Section 10. These cover the areas of: import costs, pensions, costs of generation and overhead costs.

8.4. Cost of capital

DG's Draft Decision

The DG proposed a cost of capital for GEL of 4.8%. This was based on the return GEL receives on the balance of the cash reserves it keeps with States Treasury. The DG believed, coupled with information available from other energy regulators, that this figure was an appropriate and justified rate of return for GEL and he proposed to allow this cost of capital in deriving the firm's price control.

View of respondents

GEL maintains that it did not submit a preferred cost of capital of 1%. GEL believed it had set out its rationale for choosing a return on assets of 1% in its tariff submission which was not WACC based, but based on customer protection. In other words, GEL submitted proposals on tariff levels based upon an assumption that prices were voluntarily constrained to provide a 1% return on assets. GEL state that this was due to GEL and its shareholder adopting a pricing strategy which would increase prices by only 34% in three years whilst putting customers' interests at the forefront of the company's considerations.

GEL view is that the OUR's 4.8% cost of capital is too low for a truly commercial organisation and that given the objectives of commercialisation, it needs to be appreciated that a return that is truly commercial would be well in excess of the 4.8% rate suggested by the DG – although GEL does not offer any suggestions as to what a truly commercial rate in this context might be.

DG's Position

In submitting its final tariff proposals on the 7th July 2005 the company said it had based this on sensitivities around a 5% cost of capital (which was the rate the OUR had used for Guernsey Telecoms and Guernsey Post in previous price control decisions although it should be noted that the OUR has never determined this as the rate for GEL) and had looked at 1% and 9% return on assets. The Board had then chosen the lower figure of a 1% return on assets in order to protect consumers' interests. The choice of 1% and 9% as sensitivity analyses by GEL appear to the DG to be entirely arbitrary and do not appear to have been derived from any consideration of the components that he would have expected GEL to have considered (i.e. the factors determining the cost of equity and the cost of debt).

There appears therefore to be a fundamental misunderstanding by GEL of the difference between the cost of capital and return on assets as the company appears to have used these terms interchangeably. The DG believes it is important that there is a proper understanding and application of the regulatory regime and that these terms be used in their correct context to help prevent misunderstanding. Therefore in order to provide some clarity of the differences between return on assets and the cost of capital these terms are discussed below, together with an explanation of how the cost of capital is used within a price control framework.

The return on assets is a useful indicator of how profitable a company is relative to its total assets. This percentage figure is derived by simply dividing a company's annual earnings by its total assets and is sometimes referred to as "return on investment".

The cost of capital is the level of return required by the financial markets (be it debt or equity) to provide capital to a firm. For a given level of return, rational investors will select the investment with the minimum risk; also for a given level of risk rational investors will select the project that maximizes returns. The cost of capital is often a critical issue in the regulation of capital-intensive industries (such as electricity). The weighted average cost of capital ("WACC") is the most commonly used approach for estimating a company's opportunity cost of capital and the Capital Asset Pricing Model ("CAPM") is the most widely accepted approach in estimating a company's cost of equity. These two methodologies, whilst conceptually relatively simple, are technically complex and require a number of company specific and market specific factors to be input in to the WACC and CAPM formulae.

The WACC is the weighted average of the cost of equity and the cost of debt expressed as follows:

$$\text{WACC} = (g * R_d) + ((1-g) * R_e)$$

where:

- g = debt / (debt and equity)
- R_d= cost of debt
- R_e = cost of equity

To calculate the WACC formula therefore requires the cost of equity, cost of debt, and capital structures as inputs. To derive the pre-tax cost of capital also requires tax rates as an input to the WACC formula.

The premise behind CAPM is that investors are only rewarded for carrying non-diversifiable risk (also known as "systematic" or "market risk"). The rationale behind this is that firm-specific risk (also known as idiosyncratic or non-systematic risk) is diversifiable, i.e. it can be costlessly eliminated by spreading the funds over a large number of investments. CAPM describes the equilibrium expected return on an asset as a function of its systematic risk.

Full descriptions of the WACC and CAPM which have been used for estimating a company's cost of capital are provided in publicly available documents on other regulators' websites[21] and have been referred in other OUR published papers[22].

From a regulatory perspective the cost of capital should be set to ensure the regulated business can earn a fair rate of return. The estimate of the weighted average cost of capital ("WACC") is clearly an important input in the price setting process and is used to discount future streams of revenues and costs within the allowable revenue framework. The estimate of the WACC can be compared with the return on regulatory capital employed ("RORCE") of the business under projected price control

[21] The following two documents by Oftel and the Civil Aviation Authority in particular provide good introductions to the topic;
www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/pri1997/contents.htm and www.caa.co.uk/erg/ergdocs/annexcc.pdf. A more detailed discussion of the cost of capital prepared by Smithers & Co on behalf of the UK economic regulators and the Office of Fair Trading is available at www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/2012_jointregscoc.pdf

[22] OUR 05/19, the decision on C&W Guernsey's price control contained a discussion on this issue

limits. If the RORCE is similar to the WACC then this indicates that the price limits are sufficient for the regulated business to earn a fair, risk-adjusted, return on its assets.

Regulators use the cost of capital therefore to derive the return on the regulatory asset base ("RAB") and also to discount the stream of cash flows over the duration of the price control. The NPV neutrality principle is demonstrated in the formula below:

$$RAB_0 = \sum_{0}^{n} CF + RAB_n$$

where

RAB_0 = Opening Regulatory Asset Base
CF = Net Present Value of Cash Flows over the price control period, i.e. discounted using cost of capital; and
RAB_n = Net Present Value of Closing Regulatory Asset Base

GEL provided no arguments or rationale for the proposed return on assets other than prices required to give 5% and 9% returns on the company's asset base were unacceptable to the Board who had customer's interests at the forefront of their minds which was in accordance with States Guidance. GEL however had provided no consideration of the company's cost of capital in terms of estimating the cost of equity or debt or why the OUR's approach for Guernsey Post or Guernsey Telecoms might not be appropriate in this context.

In setting an appropriate level for GEL's WACC, the DG has had regard to the specific market characteristics of the electricity market in which GEL operates and the risk implications for GEL's business. Among the key characteristics are:

- GEL is a monopoly provider of electricity and therefore faces no real competition and has a guaranteed income stream;
- the company is funded entirely through cash built up from customers;
- the company has no borrowings and has a large cash reserve;
- a high security of supply policy entailing a substantial amount of back-up generation to maintain supply and therefore income;
- a pass-through mechanism that has been provided for under this price control for imported electricity and fuel costs; and
- GEL is state-owned and therefore underwritten by the States.

The DG has not been provided with sufficient reasons to change from his position set out in the Draft Decision paper and therefore will base GEL's cost of capital on the balance of the cash reserves it keeps with States Treasury (i.e. 4.8%). The DG believes that this figure represents a more appropriate rate of return than that which GEL has proposed and more accurately reflects the opportunity cost of capital. The DG will therefore adopt this cost of capital in deriving the firm's price control.

DG's Decision

The Director General has assumed a nominal cost of capital for GEL of 4.8%.

9. Capital expenditure over the price control period

As the Draft Decision noted, electricity generation and related activities is a capital intensive business. Ensuring that such costs are tightly controlled is important in determining the impact upon electricity customers, where such costs are to be recovered through electricity charges. GEL has outlined a number of capital projects that it has already commenced or intends to undertake during the course of the price control period. Certain of these relate to the on-going maintenance of the generation, conveyance and supply chain while others relate to ancillary activities or new projects.

While the OUR's role is not to judge the merits of any particular project or investment it must assess, from the consumer's perspective, whether a proposed investment is likely to result in benefits to the consumer. It is recognised that regulated companies make investments for various reasons. However a regulator's role is to ensure that such investments are those that an efficient operator would make and that they deliver value to the consumer. The DG has reviewed GEL's proposed plans and has set out below his position on certain areas of capital expenditure proposed by GEL.

9.1. Cash Reserves

The cash reserves held by GEL amounted to £18.062m as at 31 March 2005. The reserves will have been reduced by the amount spent on non-core activity and other capital projects that are the subject of this price control decision. Where the OUR considers that an investment is non-core or there is insufficient justification in terms of benefit to electricity customers of such investments the cost of these investments are added back to cash reserves and the price control is set with reference to this revised level of cash reserves.

This is not to say that the investments are not allowed, but rather that such investments should not be funded by way of recovery of the costs from electricity customers. The implication of this approach is that GEL management and its shareholder will bear the risks of such investments rather than the electricity customer. Where such investments do yield benefits that exceed their costs then GEL will earn a higher return than provided for under the price control. The converse is also true.

GEL agreed with this approach going forward but believed that the retrospective application involves risk. GEL is of the view that the OUR's modelling amendments to GEL's opening cash reserve balance are to a large extent hypothetical, since any cash which is retrospectively assumed to have been dealt with as non-core does not really exist for the company going forward and that there are risks involved taking this into account when modelling the business for future price control purposes.

In this price control the DG has made adjustments to the opening cash reserve balance. These relate to the purchase of property near the power station site which amounts to £1.2m together with a rate of return on these funds from the time they were invested. The investment in Marine Current Turbines (MCT) of £250k is dealt with in section 9.4. The DG notes GEL's views with regard to this approach being

applied retrospectively. However, GEL was informed in October 2002, when it submitted its initial business case for increasing tariffs at that time, that the OUR would look to ensure that any investments made by GEL took account of the benefit to its customers. In a letter to GEL on 18th October 2002, the OUR noted the level of information that would be required from GEL with respect to assessing its tariff application. It stated (inter alia):

"Therefore GE should ensure that comprehensive justifications are provided throughout its submission. Some examples of the issues to take into consideration when providing justification are set out below for guidance. However these examples are not exhaustive, but merely serve to illustrate the type of information OUR will expect to receive:…..

- *project appraisals for major capital expenditure projects that clearly show the benefits that the project will bring, particularly in relation to creating operational savings and providing Guernsey's consumers with a better, lower cost and more reliable service."*

The DG believes therefore that GEL has been aware from an early stage that the nature of any assessment would focus on the manner in which GEL assessed particular areas of expenditure. GEL made certain investment decisions which it should have been aware would be subject to review.

Therefore the DG believes his approach is merely the application of the guidance given to GEL in 2002. The DG also notes that in respect to the property adjustment that GEL still owns this property and will, at some future point, realise a value for the property. In the event that GEL realizes more than the purchase price on disposal, then the shareholder gains the benefit of that excess while the opposite will also hold.

DG's Decision

The Director General has determined that the opening balance of GEL's cash reserves for the purpose of setting this price control is £20m.

9.2. Automated Meter Reading

The Draft Decision

The DG proposed to exclude 50% of the proposed £0.892m investment in Automated Meter Reading (AMR) over the period of the price control. The basis for this position was that GEL's decision to invest in AMR did not offer sufficient benefits to customers to merit the adoption of this proposed investment and the costs placed on electricity customers proposed are not those that an efficient operator would incur. Instead the DG proposed to allow GEL to recover 50% of historic and future investment in AMR in recognition that a level of investment is required in metering.

Comments Received

GEL disagreed with the DG's position regarding AMR in that the investment was justifiable from an economic perspective. GEL stated that the Cost Benefit Analysis ("CBA") in GEL's Board Paper on AMR demonstrated a saving of £300k for full AMR adoption. GEL believed this demonstrated that the project was justifiable without quantifying in monetary terms the non-cost benefits of AMR. It believed that the investment case was not dependent upon these benefits in any event and were simply additional reasons why the programme should be allowed to proceed to completion.

The OUR sought additional information from GEL as the company's response to the Draft Decision simply reiterated information that the company had already provided to the OUR. The OUR has subsequently sought and been provided with a standard discounted cash flow ("DCF") analysis as part of a CBA of the investment[23].

In subsequent discussions, the OUR has been informed that after the presentation to GEL's Board of the AMR Project Business Case in July 2003, the Board requested that the project should be subjected to a full DCF CBA and, if economically justifiable, then the project should proceed. GEL's Project Cost Comparisons ("PCC") document which was provided to the OUR showed that the investment in the AMR project to have a positive Net Present Value ("NPV") of £20,000 over a ten year time horizon. Although the OUR had sought all relevant documentation that had gone to the Board on the AMR project it had not been provided with a copy of the PCC document. The OUR now understands that the Board was provided the results of the PCC, but not the actual DCF model.

In addition to this, GEL contended that:

- Guernsey's electricity market was substantially different from other European markets and as a result was well suited to the rolling out of AMR technology; and
- the OUR's view on AMR is in *"stark contrast to that of other regulatory bodies, who have been pressing electricity companies to adopt such technology, since its benefits are widely recognised"*.

GEL also argued that the OUR had failed to take into account correctly the impact of removing the AMR project from the OUR's financial model, as the costs associated with traditional metering had not been included in GEL's tariff data submission. GEL maintained that the forecasts did not allow for additional necessary capital investment that would be required if GEL were to return to a future programme which relied upon the old technology (e.g. replacement of the cyclocontrol load switching system).

DG's Position

The DG is grateful for GEL's provision of a DCF CBA. In the DG's view, however, GEL's analysis of the two options (i.e. continuing the existing arrangement or adopting the roll out of AMR technology) is not what would be considered an incremental analysis and does not allow a complete assessment of the investment options. As a result of this, a number of costs do not appear to have been included in GEL's original costing of the AMR project upon which the Board based its decision

[23] Appendix 8 of [reference to GEL response to information request]

to proceed. Performing a full DCF analysis based on the same assumptions as used by GEL when it made its decision highlights that, contrary to GEL's conclusion that the project had a positive NPV of £20,000 (and a "saving" of £300k for full AMR adoption as set out in the AMR Business Case presented to the Board in 2003) the project in fact had a negative NPV[24] of over £400k. Therefore in the DG's view, when the decision was taken to proceed with this investment, the company does not appear to have properly assessed the costs of doing so and may have reached an alternative view had a proper CBA had been carried out at that time.

GEL have since acknowledged that the original DCF in July 2003 was flawed. However it has repeated the 2003 analysis and updated forecasts with actuals and maintain that since labour costs and pension contributions have increased significantly since then, the AMR option using an incremental CBA now has a positive NPV of £700k. The OUR has not reviewed the revised assumptions to assess the robustness of the company's analysis, but has focused on the information that was to hand at the time of the original investment decision.

It is clear that prior to any consideration of the potential unquantified monetary benefits of AMR, based on GEL's own information the AMR project was not economically justified. The DG notes that GEL's own regulatory expert, Professor Stephen Littlechild, in 2003 expressed concerns about the economic value of AMR. He noted that:

> *"Charging according to the range or volatility of consumption would also provide a further much needed but justifiable boost to more advanced metering. I say a 'much-needed boost' because I fear that the present economics of metering do not generally justify installation of time-of-day metering that the author goes on to discuss. Several economists have advocated such metering, and illustrated the potential benefits.* ***However, I have yet to see a detailed economic evaluation that such benefits outweigh the prospective costs*** *[emphasis added]."*[25]

However the fact that the AMR project has a negative NPV does not necessarily mean that it should not be allowed from a regulatory perspective since, as GEL have noted, the CBA does not include the unquantified monetary benefits arising from the investment. GEL maintains that the customers will benefit from this technology for a variety of reasons[26]. The DG recognises that attempting to quantify these benefits would be a difficult and time-consuming exercise. The DG notes that GEL's most recent DCF suggests, based on the new information available to it now indicates that

[24] In fact the project has a negative NPV for all positive discount rates.
[25] "Reflections on Incentive Regulation" – Stephen Littlechild, Review of Network Economics, Vol 2 Issue 4- December 2003.
[26] GEL cite a number of potential benefits including the end of estimated billing for all customers and accurate billing of energy consumed for all customers, the future introduction of bi-monthly or monthly direct debit options on accurate energy consumption, greater security of supply through global load shedding technology to shed heating load only, in planned load reduction scenarios. No entry required to customers private property to read meters accurately. Final reading and disconnect process for billing purposes is carried out remotely using the AMR system at a pre-arranged time. No physical appointments to keep or need to be kept waiting due to operational work load and traffic issues.

the AMR project is in fact economically justifiable even without the unquantified benefits.

In response to GEL's claims that other regulatory bodies are pressing electricity companies to introduce AMR, the DG is aware Ofgem has made no recent public declaration on the benefits or otherwise of AMR metering in the UK. The OUR is also aware that Ofgem is looking at innovative metering in detail, with AMR being only one strand of the metering options potentially available. Ofgem is considering this area from a regulatory and policy perspective. No decisions have been made at the current time and Ofgem has informed the OUR that work to fully understand all aspects, such as technology, CBA and regulatory implications, will continue into 2006. The DG is aware that energywatch have made their views explicit and seem clear on the subject but GEL should be aware that Ofgem and energywatch are not the same organisation and have fundamentally different roles.

While the OUR is concerned that the decision to proceed with this investment was made with support from a CBA that the company has since acknowledged was incomplete, in light of the new DCF evidence which GEL has now provided, the DG is prepared to allow the AMR project to be included within GEL's allowable revenues for the price control purposes.

DG's Decision

The Director General will allow GEL's investment in AMR over the period of the price control to be included in its allowable revenue.

9.3. Future Generation

While a number of elements contribute to the price of customer's electricity, generation costs account for a significant proportion of the final price. The future generation options chosen by GEL will therefore have a direct bearing on future electricity prices. The economics of investment in this area is therefore a critical part of the long term planning for electricity provision for the Island. There is also a need to consider pricing issues within the general policy direction for electricity generation, in particular the context of overarching economic, social and environmental aims of Guernsey. The assessment of this element of GEL's proposed costs will have a large bearing on any future tariffs consumers are asked to bear.

Currently, Guernsey has sufficient capacity to meet a maximum demand of 174MW when it has access to the full 60MW available through the Jersey/France interconnector. As it was only contractually entitled to 16MW (increasing to 17MW) of capacity through the interconnector, 130MW was taken as the guaranteed capacity available to the Island. However, projections of the Island's demand for electricity suggest future investment is needed to increase the capacity available to the Island.

A number of alternatives are available to GEL to meet these future requirements. GEL's preference is for an additional guaranteed capacity of 20MW to be made available to Guernsey through the construction of a third 85MW cable connection between Jersey and France.

As noted earlier in this report, during 2003 and 2004, C&E conducted a review of strategic options for Guernsey's electricity sector. As a key input to this review of strategic options, C&E contracted with consultants, Mott McDonald, who delivered a final report in December 2004. This report identified the trade-offs between certain policies and provided a broad indication of the likely cost differences between the alternatives over a reasonable time period.

The OUR notes that no particular decisions are being taken at this time on how Guernsey meets its future energy requirement but that all realistic options remain on the table. As a result, the OUR has designed the current price control based on ensuring the sufficient cash reserves are built up and maintained to ensure that when any firm decision is taken the necessary resources are available to enable GEL invested in the generation capacity without recourse to borrowings.

In order to comply with the GEL's financing approach, which requires cash reserves to be accumulated to fund future generation (the exact form of which will not be determined for some time) in undertaking this price control review the DG has allowed through the price control an allowance that enables GEL's cash reserves to be accumulated over a period. In doing so the DG has looked to balance GEL's very real need to have the cash available when it needs it whilst ensuring customers pay tariffs that are proportionate to meeting this goal.

As noted in OUR 05/23, the DG has adopted GEL's preferred generation option (which includes an additional link between Jersey and France) as the basis upon which to plan for the cash reserves required to meet any future requirements. Should an alternative generation option to that being proposed be preferred, the level of cash reserves may need to be reviewed. The DG expects that the Energy Policy Review Group's review may further inform any future consideration of this issue.

DG's Decision

The Director General will allow an amount of £8.6m in the current price control to contribute to GEL's overall cash reserve fund required for investment in future generation capacity.

9.4. Reducing Emissions & Renewable Energy

Draft Decision

The OUR had proposed in its Draft Decision allowing GEL an amount to contribute to reducing greenhouse gas emissions. In the draft report the DG described in detail the rationale for his proposed approach of allowing GEL collect from customers an amount of approximately £100,000 per annum to fund initiatives on energy efficiency. The DG also set out the reasons why he did not believe it appropriate that consumers fund GEL's investment in tidal research.

GEL's views

GEL objected to the OUR's proposed approach for two main reasons. Firstly GEL does not agree that the OUR has a role in requiring GEL to *"make funds available via GEL to reduce greenhouse gas emissions"*. GEL see the proposed £3.60 per customer per annum (i.e. the proposed greenhouse gas emission premium which generates

£100,000 pa) as being *"essentially an additional cost to customers upon which they are not able to make a choice"*. It is also concerned about the administrative costs of this proposal and what it views as *"additional regulatory costs in reviewing what is essentially a new obligation under the electricity licence"*. In light of these concerns, GEL does not believe the proposal is worthwhile or an appropriate use of customers' money.

Secondly, GEL objected to the disallowance of its £250,000 investment in MCT to explore tidal energy. GEL believes it is abiding by the States policy requirements on it with regard to renewable energy sources rather than attempting to promote energy efficiency. GEL believes *"some small level of investment is necessary for GEL to comply with States' policy in this area"* and is in its view *"essentially equivalent to the cost of commissioning expert advice but allows that knowledge to be built up on the island by GEL employees through access to privileged information"*. It believes its investment is proportional to its small size but gains for Guernsey *"very significant benefits given the very special conditions that exist in the island's waters"*.

GEL believes the OUR should allow *"existing historical costs for MCT within the price control"* and that *"Future costs should not be ruled out since to do so might prevent the company from complying in future."*

The DG will address the two key points of GEL's response in turn.

Energy Efficiency

With regard to energy efficiency, the DG had proposed that GEL would be allowed to include within its tariffs to electricity customers an amount of £3.60 per customer per annum to encourage energy efficiency. The DG's rationale for this was driven by the increasing acceptance that a key tool in reducing greenhouse gas emissions in future will be influencing the factors that impact upon demand for energy.

The value of drawing on energy efficiency initiatives to achieve reductions in emissions was recognised in the UK's Energy White Paper, which stated that, "*The cheapest, cleanest and safest way of addressing our energy policy objectives is to use less energy*"[27,28]. Ofgem estimates that even at relatively low levels of support, energy efficiency has achieved savings of about £35 per household per annum and 0.6Million tonnes of carbon per household over the lifetime of the energy efficiency measures[29].

The OUR believes that addressing energy demand will form a crucial part of Guernsey's approach to addressing greenhouse gases. Indeed the OUR notes that GEL already has such an obligation from the States since the decision to introduce the cable link was approved by the States in 1996. In a Policy Letter from the Advisory & Finance Committee to the States on 25 September 1996, that Committee noted that:

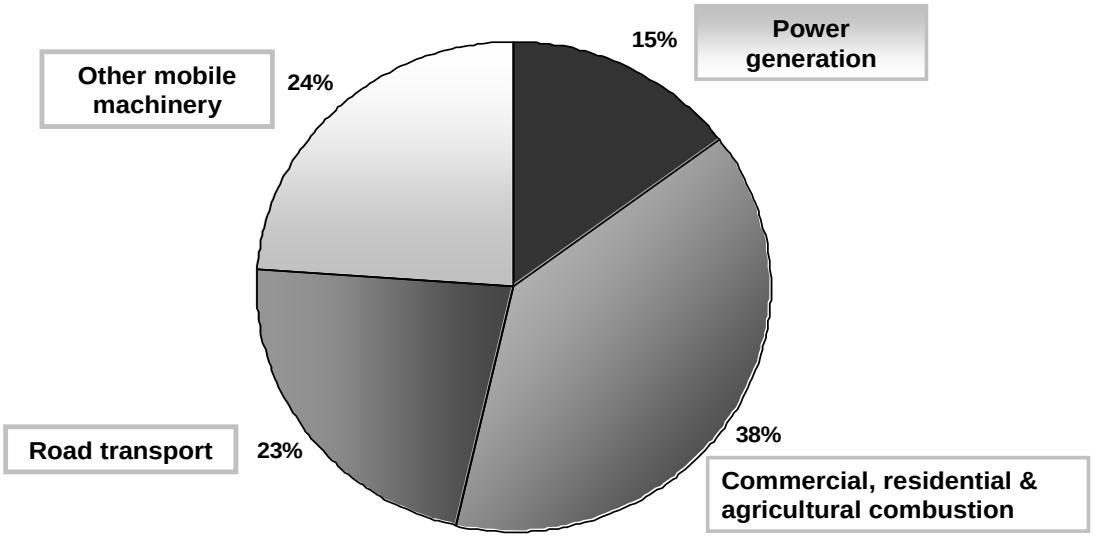
[27] UK White Paper – "*Our energy future – creating a low carbon economy*"
[28] The level of investment by the UK in the 'Energy Efficiency Commitment' programme is approximately £3.60 per domestic household per annum and a reduction in consumption of approximately [10%] per annum is targeted.
[29] Ofgem press release dated 2nd Aug 2005

"*The Advisory and Finance Committee is pleased to note that the Board [States Electricity Board] is committed to a long term programme of minimising emissions from its plant. The Committee will be seeking to see this commitment implemented not only through the use of a cablelink, but also through appropriate practices on the operation of local plant and* ***an active participation in Island wide energy efficiency initiatives***." (emphasis added).

Guernsey's contribution to UK's greenhouse gas emissions is low. The Environment Department estimates that;

- the maximum average carbon dioxide and sulphur dioxide emissions of the Island are between 0.04% - 0.05% of the UK's 2000 level;
- NOx emissions average 0.3% of the UK's 2000 level;
- emissions associated with power generation accounted for only 14.5% of 85,032 tonnes of carbon emissions in 2002[30] with;
- Power generation accounts for only 0.3% N_2O emission; and
- Power generation does not contribute to any of the other four greenhouse gases within the Bailiwick

Figure 3: Guernsey Greenhouse gas emission estimates (2002)



Source: National Environmental Technology Centre-AEA Technology

The current level of emission due to electricity generation on the Island are likely to be even less than that in 2002 when these figures were compiled given that On-Island generation has fallen by 80% over the period 2000 to 2004. Therefore whatever the contribution that renewable energy might make it is unlikely to significantly impact upon the air quality in Guernsey.

[30] The balance of emissions are accounted for by commercial, residential and agricultural combustion (38.9%), road transport (22.6%) and other mobile machinery (23.8%)

As the DG noted in the Draft Decision, the range of alternatives to achieve reduction in emissions is wide. The DG is required to assess whether the approach taken to-date by GEL is likely to provide an efficient means to support the States environmental agenda. The associated costs, the likelihood of success and length of time before the Island is likely to realise the benefits of such investment are important considerations that inform such an assessment.

The DG believes a more appropriate approach to addressing this issue for Guernsey is through the promotion of energy efficiency. The reasons for this are:

- energy efficiency gains benefits for the customer immediately and small upfront investments will have on-going benefits;
- promotion of energy efficiency helps reduce demand and thus helps decreases the costs of importing oil and electricity;
- in Guernsey the contribution of generating electricity to greenhouse gases is relatively small; the UK the figure is closer to 40% and therefore the need to tackle generation issues in the UK are greater; and
- investment in energy efficiency starts paying for itself immediately and both GEL and the customer gains from such investment.

The Draft Decision highlighted that many electrical products are less energy efficient than they could be - for example, the average upright freezer on the market today uses almost three times as much energy as the most efficient freezers. Energy saving light bulbs use less than a quarter of the energy of ordinary light bulbs, and also last many times longer. According to the Energy Saving Trust, each energy efficient light bulb can reduce on average ones electricity bill by up to £7 per year. For an average three bedroom house this equates to a minimum saving of about £70 per year on a customer's electricity bill.

Since the publication of the Draft Decision, the UK's Geological Society in October 2005 hosted a conference "Challenges and Solutions; UK Energy to 2050" which considered the whole range of options available to address the UK's energy needs in the future. This meeting noted that:

"Demand is a critical factor. The meeting believed that there is already considerable potential for reduction. Efficient use of energy must be pursued as a key element of the future energy mix, in parallel to supply aspects. The meeting was unanimous that, whatever new technologies might be developed in the 2050 timeframe, much could be done now by the further application of existing technologies to deliver substantive benefits by 2020…… coupled with improved energy efficiency through improved building standards and wider adoption of low energy devices.

Improved information to consumers, including more detailed information on energy bills, should be made available. Greater efforts should also be made to provide advice on how to reduce consumption..."[31]

[31] *http://www.geolsoc.org.uk/template.cfm?name=PR60*

The DG's believes energy efficiency measures could be encouraged by allowing GEL collect, as part of its allowed revenue, approximately £100,000 per annum to support efforts in this area. The OUR does not agree that such an obligation is outside the OUR's powers (by virtue of the duties imposed on the DG by the States through section 2.1(f) of the Regulation Law, 2001 and his general duties to protect consumers). The DG further believes, by virtue of the States Policy relating to energy efficiency from 1996 as noted above, GEL does have an obligation to consider energy efficiency issues in any event, outside the scope of any obligation that might be considered under the regulatory regime.

However, the DG has taken account of GEL's objections, in the absence of any wider States Policy on energy efficiency, of being required to collect through its tariffs funds to be made available to it support energy efficiency initiatives at this time. The DG does not now therefore propose to make an allowance for this measure in the price control. The DG will however review this issue in a future price control to take account of any future recommendations which the Energy Policy Review Group may bring forward.

Marine Current Turbines (MCT)

Concerning GEL's investment in tidal energy research, as was noted in OUR 05/23, the OUR's role in assessing this particular investment is to ensure that, in setting tariffs for customers, operators look to recover through electricity charges only those costs that an efficient operator would incur. While the OUR notes GEL's view that the investment in MCT to-date has been modest and that it has not, in the business plan submitted to the OUR, planned any further investment in this area, the DG must assess this issue from the principle of whether it is appropriate that such an investment is funded by GEL's customers.

The issue for the OUR is whether customers will gain any benefit from this investment. The DG must also consider the policy which underpins GEL's case for its decision to invest in tidal energy. The DG notes that the States policy from July 2000 (which is reproduced below) does not impose any obligation on GEL to invest in any form of renewable energy and notes that this policy has been interpreted by GEL in a particular manner. While the DG notes GEL's objection to the OUR's energy efficiency proposal on the grounds that customers have no choice in paying £3.60 per annum, the DG is similarly aware that GEL's preference is that customers should be compelled to contribute to its investment in tidal research, which equally could be argued allows customers no choice on how money collected through their bills is used.

GEL has already invested £250,000 for an equity stake in MCT, a UK-based consortium behind research into new current technology. It states that this investment was required in order to comply with the States' policy and that it is, in its view, the most efficient means of achieving this goal. While GEL maintains that it is has not sought in its business plan an allowance for any further investment, it has argued that should such investment be made, the OUR should allow it to be recouped from customers.

The DG believes it may be helpful in understanding the OUR's position on GEL's investment in MCT by highlighting the States policy under which GEL believes it is

required to invest in renewable technology. The following is an extract from the States Strategic and Corporate Plan contained in Billet D'Etat XV, 12th July 2000, under section 3.3 Energy Policies, which GEL argues supports its investment in MCT:

"The practicability of using renewable energy sources for producing electricity should ***continue to be monitored*** *by the States Electricity Board and other States Departments. Individuals and businesses should* ***be encouraged to use renewable energy resources wherever practicable****. Progress on the use of renewable energy should be reported upon annually in the Policy Planning, Economic and Financial Report."(emphasis added)*

According to recent reports[32] prepared for the UK's Department of Industry which assessed a range of renewable technologies, it was noted that these technologies are likely to have a role in achieving long-term energy policy objectives. However a key conclusion of these assessments is that, *"…there appears to be limited potential for any renewable technologies to reach commercial viability within the next decade"*. With regards to technologies utilising sea currents and tides, these reports conclude that tidal generation has even longer term prospects than most of the alternative renewable technologies.

These reports also indicate that even if renewable technologies, such as tidal generation, ultimately prove successful there are constraints on the rate at which their capacity can be expanded to meet more than a fraction of demand over the foreseeable future. In terms of unit costs, tidal technology is in a class of renewable technology with one of the highest risks and the greatest cost.

GEL is an electricity provider with a customer base that is a fraction of a percentage of the customer base of the larger European providers. It therefore has substantially fewer customers over which it can spread the fixed costs of investment in renewable generation technology and particularly one as high risk as marine current generation technology. In the DG's view, given the uncertainty, high cost and significant amount of time before investment in tidal renewable technology may deliver any benefit for its customers, in particular when compared to investment in 'energy efficiency' initiatives, he is not convinced that this initiative be funded by customers through their electricity charges.

It remains the DG's view that an electricity provider the size of GEL would not usually be associated with investment in a renewable technology such as tidal generation, even allowing for the fact that it does have access to a tidal resource such as that found in the waters around Guernsey. MCT has chosen to develop and trial the technology next to the UK market to exploit tides in that region, rather than around Guernsey which suggests Guernsey customers are unlikely to be early recipients of renewable electricity from this source even if this particular venture is successful. While the DG is aware of the terms of GEL's investment in MCT, it remains unclear what additional benefits might be gained from this investment that might not otherwise be gained from a 'wait and see' approach.

[32] 'What is the potential for commercially viable renewable generation technologies', *Interim report prepared for the Department of Trade and Industry*, January 2005 (paragraph 6.2).

In the DG's view it would seem more efficient for an electricity provider such as GEL to initially concentrate on a less costly, low risk option for meeting the Island's needs in this area and which offers a more immediate prospect of having a positive impact for its customers. The OUR is aware that the States has, at it meeting on 30th November considered the issue of Guernsey's overall approach to both renewable energy and efficiency issues. Included within this policy letter was an extract from the report commissioned by C&E prepared by Mott McDonald. This report concluded that:-

> *"… we are of the view that throughout the upcoming investment cycle renewables, with the possible exception of Municipal Solid Waste (i.e. a Waste to Energy plant), can only be considered as fringe forms of generation, which will have to be backed up by more reliable sources of energy. As such, it is possible that significant investment in renewables will increase costs which will either have to be passed on through to prices or could be funded by some form of States subsidy which would potentially divert resources from other States projects."*

The OUR observes also that the Policy Letter noted that overall decisions with regard to tidal energy should await the outcome of the work of the Energy Policy Review Group. It stated;

"The Commerce and Employment Department concurs with the views of the Environment Department that decisions on the funding of research and piloting of renewable energy sources, including tidal power, should be taken at corporate level. Following consideration of an early draft of this report, the Policy Council has advised that it favours consideration of renewable energy issues as part of a wider review of overall energy policy, also encompassing energy efficiency measures."

Therefore the DG continues to believe that GEL should not recoup from customers the equity investment in MCT. In light of GEL's comments on energy efficiency, and while the OUR does not necessarily share GEL's views, the DG does not intend to require the company at this stage to recoup any contribution from customers to promote energy efficiency. The OUR will consider this matter further in light of any recommendations from the Energy Policy Review Group.

The OUR's position on this issue however does not preclude GEL from continuing its consideration of tidal energy as part of its non-core activities. Decisions on this are a matter for the Board and Shareholder.

DG's Decision

The DG will not allow as part of GEL's allowable revenue the £250,000 equity investment in Marine Current Turbines and will reduce the return to shareholder over the next three years to take account of this expenditure since GEL believes the States as its shareholder have required it to incur this cost. The DG is not proposing any funding for future energy efficiency within the price control. He will however review this particular area following any outputs from the Energy Policy Review Group.

10. Operating expenditure over the price control period

In seeking suitable benchmarks against which the efficiencies of businesses providing services such as GEL's can be compared regulators have tended to compare the achievement of other privatised businesses with similar features and over a comparable phase of their post-privatisation histories. A number of features of GEL's business are similar to those of other privatised infrastructure network businesses that operate in market environments with relatively few competing providers. Comparison with such businesses can provide a reasonable basis to assess the potential for efficiencies. Rail, water, sewerage, electricity transmission and distribution, and gas transportation are all industries generally regarded as comparable to an electricity provider such as GEL.

To indicate the scope of savings that have been proposed by regulators a summary of operating expenditure efficiency assumptions adopted by UK regulators is set out below. Figure 4 below suggests a range between 1.5% and 5%.

Figure 4: Summary of Efficiency Assumptions adopted by UK Regulators

Company	Duration	Real reduction
British Gas (1991)	1992-1997	2.5% pa
BG Transco (1996)	1997-2002	3.1% pa
British Gas Trading (1996)	1997-2000	4% pa
BT (1996)	1997-2001	3%-4% pa
NGC (1992)	1993-1997	5% pa
NGC (1996)	1997-2001	2.5% pa
REC Distribution (1995)	1995-2000	2% pa
REC Distribution (1999)	2000-2005	2.3% pa
REC Supply (1993)	1994-1998	2% pa
REC Supply (1997)	1998-2000	2% pa
Scottish Hydro (1994)	1995-2000	2% pa
Scottish Transmission (1993)	1994-2000	2% pa
NIE Distribution (1997)	1997-2002	1.7% pa
NIE Supply (1997)	1997-2001	1.5% pa
Water/Sewerage (1994)	1995-2000	2% pa
Water/Sewerage (1999)	2000-2005	2.7% pa

Source: Europe Economics: A report for the Office of the Rail Regulator

Europe Economics has also examined the unit operating cost reductions actually achieved by UK privatised network businesses and the evidence from this study is set out in Figure 5 below:

Figure 5: Compound Annual Real Reductions

Water	-3.7%
Sewerage	-4.1%
Electricity transmission	-6.5%
Electricity distribution	-6.8%
Gas transportation	-9.1%

Note: unit operating costs exclude depreciation
Source: Europe Economics: A report for the Office of the Rail Regulator

Such comparisons suggest substantial cost reductions in the range -3.7% to -9.1% have been achieved by these businesses since privatisation. Also efficiencies actually achieved appear to have exceeded those set by the regulators. The Europe Economics study highlights that falling unit costs were accompanied by improved service quality in these industries while the trend in unit operating costs is seen to continue to decline with the length of the period since privatisation. Their assessment of privatisation literature highlighted a further feature, namely that privatised industries have achieved productivity growth significantly faster than the economy as a whole and generally faster than they managed before privatisation.

The above provides a useful context in terms of regulatory precedent and the actual efficiencies achievable by businesses operating in those industries that in many important respects share common features with GEL.

10.1. Imported Electricity [This section is confidential]

10.2. Generation Fuel Costs

The DG notes that fuel costs are also subject to significant levels of volatility. To further reduce the risks to GEL he proposes that where the actual unit fuel costs incurred by GEL over the period 1st December 2006 to 31st March 2007 deviate from those on which this price control is based GEL will be able to recoup this in full from its allowable revenue in the price control commencing 1st April 2007.

10.3. Pensions

The employees of GEL are members of the States of Guernsey Public Servants Pension Scheme (PSPS). This is a defined benefits pension scheme funded by contributions from both employer and employees to the pension scheme at rates. These rates are determined on the basis of independent actuarial advice, which are calculated to spread the expected cost of benefits payable to employees over the period of those employees' expected service lives. The most recent valuation of the GEL pension fund identified a deficit at the end of March 2005 of £4,940,000.

Many organizations in Guernsey and other countries are facing challenges to address shortfalls in their pension funds, much of this driven by increased life expectancy and falls in equity markets over recent years. The approach proposed by GEL to ensure

this deficit does not grow further is to increase the level of its contributions from the current level of 8.35% to 16%. Also, in order to address the existing shortfall the payment of lump sums by the company into the credit of GEL's account in the pension fund is proposed by GEL for a period of time. The Board of GEL has already approved a sum not exceeding £500,000 to be paid into this fund for the year ended 31 March 2005. GEL proposed that the same amount is paid into the fund for the next nine years to address this existing deficit.

Draft Decision
The need to address the shortfall and prevent it from growing was an accepted cost for which allowance should be made in GEL's allowable revenue. The proposal by GEL to increase the current level of employee contributions to 16% was therefore accepted by the OUR which amounts to £0.5m per annum but the draft decision proposed recovery of the fund deficit was spread across a 15 year period based on assumed average remaining service period of its employees of 15 years.

View of respondents
GEL in its response and in subsequent correspondence has provided the OUR with additional information from its actuaries which confirms that the average remaining service period of its employees is 12 years.

DG's Decision
GEL originally proposed addressing the shortfall over a period of nine years. In the Draft Decision, the DG highlighted that there was a need to consider whether alternatives are available to GEL that have less impact on customers and had, for the reasons outlined in the Draft Decision, proposed 15 years as a more appropriate period. The DG believes, in light of this new information, there is a strong and clear justification for allowing GEL address this element of its operating cost over the actuarial based average service period of its employees and will adjust the allowed revenue accordingly. The effect of this would be to allow GEL £0.416m per year for 12 years to address the current shortfall.

10.4. Generation and Overhead Costs [This section is confidential]

DG's Decision

The Director General is allowing GEL, as part of its allowable revenue, £38.2m over the period of the price control to reflect the efficiency saving as provided for in section 10.4 of this decision notice. The Director General will review in 2006 the scope for additional operational efficiency savings.

11. Cash reserves for capital expenditure

Draft Decision
In the Draft Decision the DG assumed cash reserves at the start of the period to be £21.2m as a result of a number of adjustments to the company's balances with the States Treasury. The DG assumed that the company will require a particular level of cash reserves at the end of 2016/17 for forward capital expenditure.

GEL's view
GEL dispute a number of data assumptions regarding the company's underlying operating costs, but in relation to the cash reserves and the pre-funding arrangements made five specific points which are detailed below.

Level of Cash Reserves at 2016/17
GEL are unclear as to the basis for the decision for allowing £10m in cash reserves in 2016/17 and believe that this cash reserve is inadequate to withstand contingencies. GEL believes it should have sufficient cash reserves to ensure that in the event of a major plant failure it is able to fund any replacement in cash.

Benefits of Pre-Funding
GEL maintain that debt finance does not bring benefits to its customers. GEL's view is that its approach to pre-funding, which is consistent with States policy, generates interest income that offsets costs and so allows tariffs not to change or restricts increases. As a result GEL maintains that reducing cash reserves and taking on debt generates additional costs which are *"either passed onto the customer in higher tariffs or the company achieves lower profits or suffers losses."* GEL also refer to the Isle of Man as an example of a situation different to Guernsey where debt has been required in order to fund electricity services, and tariffs which it claims have increased as a result, demonstrating the prudence and appropriateness of GEL's funding strategy.

Adjustment to the Opening Cash Balance
GEL disputes the retrospective adjustments to cash balances for non-core funding and uneconomic investments.

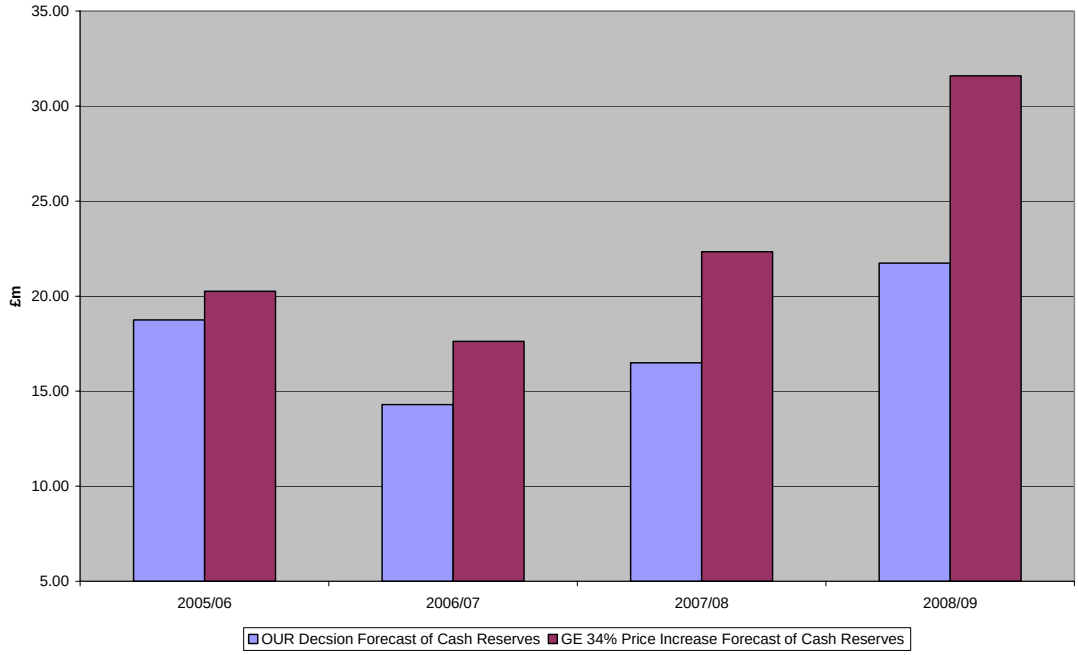
Fundamental Errors in the OUR Approach
GEL maintain that the OUR in its draft decision is not allowing GEL to reflect the full additional cost of imported electricity to its customers as these are assumed to be off-set with the OUR's efficiency proposals. In addition the OUR's Draft Decision does not allow GEL any return on the company's tangible fixed assets which was recorded in the company's regulated accounts as £99m in 2002 (£92m at the end of 2004/05).

Non Core Activities
GEL also argues that the OUR is incorrect to infer that GEL's non-core business has no benefit to electricity customers. In particular GEL maintain that there is a customer expectation for GEL to provide retail sales and contracting and this service provision is consistent with Guernsey's sister islands and is highly appropriate in the circumstances. GEL also maintain that it participates in activities which it considers as community services, which its shareholder approves of, namely providing fuel to growers to support the horticulture business in the island and streetlighting.

DG's Position
The DG's position on each of the main points raised by GEL are set out below.

Level of Cash Reserves at 2016/17
The 2016/17 cash reserves in the Draft Decision were set at a level which the DG considered appropriate in order to fund the next round of the company's capex plan. A comparison of the company's balances with States Treasury through to 2008/09 under the DG's decision and the company's own pricing proposals are shown in Figure 11 below.

Figure11: Comparison of Cash Reserves 2005/06 to 2008/09[33]



The DG is still of the view that the company does not require cash reserves to increase to over £30m by 2008/09 as requested by GEL. The DG also does not accept GEL's position that the company requires sufficient cash reserves to deal with any contingency that might arise. Whilst GEL maintains that £10m is inadequate to cover contingencies, the DG notes that in 2001 the States Electricity Board balances with the States Treasury had fallen to £4.6m.

The DG believes that there must be a consideration of the risk of any plant failure and the premium that electricity customers must be charged to provide such a contingency fund. It should also be taken into consideration that the security of supply policy substantially mitigates the risk that GEL will not be able to deliver electricity to customers and the risk to customers of GEL's approach therefore is that GEL is seeking to run the business with a level of security of supply beyond that which is necessary.

[33] GEL cash balance is estimated based on its preferred pricing strategy.

Benefits of Pre-Funding

The DG considers that GEL's pre-funding strategy is not consistent with what would be expected in competitive markets and is in fact in contrast with the manner in which companies engaged in equivalent commercial activity are funded (i.e. a combination of debt and equity funding). GEL in its response to the Draft Decision stated the OUR's criticism of the "Save to Spend" policy was not justified and the £700 deposit per customer (GEL express this as £222 per islander or £464 per domestic customer) is in line with the overall island policy of on not being indebted.

GEL highlights the Isle of Man as an example of rising prices as a result of debt funding by the Manx Electricity Authority ("MEA"). Whilst MEA's financial problems are well known it is wholly misleading to attribute the Authority's current difficulties simply due to having acquired debt finance. MEA's current situation and recent tariff changes actually result from serious failures in the corporate governance of the state owned enterprise and in fact are currently the subject of two separate investigations. GEL are also incorrect in stating that MEA's prices have increased as result. In reality because the MEA has withdrawn a standing charge of £42, the net effect is a three per cent reduction in consumer prices.

Adjustment to the Opening Cash Balance

In response to GEL's comments on the adjustments to the opening cash balance, section 9 refers to the DG's acceptance of the AMR historical capex and deals with the investment in MCT. As stated in section 9, GEL has been aware for some time of the DG's approach to assessing such investments. Whilst GEL's investment in property adjacent to the power station has been added back to the cash levels, this is a relatively liquid asset which the company should be able to realise relatively quickly at an appropriate time. In summary the DG has reduced the opening cash balance to allow for the historical AMR investment.

Fundamental Errors in the OUR Approach

The OUR disagrees with GEL that there are any errors in the OUR's approach. The increases in import costs have been allowed for in their entirety and it is entirely normal for a regulator to assume an operator is able to make reasonable efficiency savings over the duration of a price control and this is dealt with in detail in section 10.

GEL's views regarding the shareholder's right to a return on the company's RAB is covered at length in section 8 of this document and the DG does not propose to repeat his position here. However this is a matter which will be addressed further in 2006 as provided for in section 13.

Non Core Activities

The DG maintains that whilst these non core activities may be seen as socially worthwhile and commendable community services there is no economic justification for them to be funded by customers through their electricity bills. As the DG remains of the view that it is inappropriate to fund these services through electricity prices the source of funding for these activities remains a matter for GEL and its shareholder.

The same principles apply to GEL's retail and contracting services and the DG is not convinced that the provision of these services in sister islands where there is a dominant operator is sufficient justification for them in Guernsey. These non-core services should be self financing and not funded by electricity prices, particularly when these are competitive markets (i.e. there are a number of retailers in the island providing electrical goods and similarly a number of electrical contractors competing in the island).

DG's Decision

The DG has accepted the principle for this price control that pre-funding will be maintained by GEL. The DG remains of the view that setting the level of such funding needs to balance GEL's real need to have sufficient reserves as they are required with the implications such pre-funding has for customers. Any allowance for pre-funding needs to be proportionate to the realistic needs of the company. The DG will consider this further after the conclusion of the review set out in section 13.

12. Conclusion

The conclusions of the OUR's assessment in this decision paper are set out below.

12.1. Capex

Capex is an important input into the calculation of GEL's allowable revenue under the price control and has been assessed by the DG. The DG is allowing GEL an amount for capex of £9.4m to be spent between 1st January 2006 and 31st March 2007.

Decision

The Director General is allowing GEL as part of its allowable revenue £9.4m over the period of the price control

12.2. Opex

The DG's decision on the appropriate opex to be included with GEL's allowable revenue has been based on a detailed review of the company's business plan and forecasts. This has included a detailed assessment of both the potential for future efficiency gains by GEL and an assessment of its demand forecast.

As a result of all the detailed analysis and review of GEL's forecast opex costs, the DG is allowing an amount of £38.2m as part of its allowable revenue over the price control period.

Decision

The Director General is allowing part of its allowable revenue £38.2m over the period of the price control.

12.3. Cost of Capital

The DG understands that GEL receives 4.8% on its cash reserves. The DG believes, that this figure represents a more appropriate rate of return than that which GEL has requested and the DG proposes to allow this cost of capital in deriving the firm's price control.

Decision

The Director General is using as the cost of capital in setting a price control for GEL Guernsey Limited a pre tax nominal WACC of 4.8% in the OUR economic model for the price control.

12.4. Level of Price Control

The final level of the control has been set so that if GEL operates in an efficient manner it will be able to recover its costs associated with the price controlled business from the revenue attributable to that business. The DG, in setting the maximum that GEL may increase tariffs by over the period of the price control, has had regard to the long term requirements of the company as well as the immediate changes that the company will face in its operating cost base as a result of the revised import contract with EdF.

The DG therefore is setting the price control at a level of RPI + 1.7%

Decision

The Director General has set a price control for GEL over the period of the price control as follows such that it may increase its tariffs for each of its services by a maximum of RPI +1.7% during the following periods:

1st January 2006 – 31st March 2006:	RPI + 1.7 %
1st April 2006 – 31st March 2007:	RPI + 1.7%

13. Next Steps

As the decision on GEL's tariffs is now being set until March 2007, for the reasons outlined earlier in this decision notice, the OUR must consider in co-operation with GEL, T&R and C&E how best to address the issues relating to the level of return the States is entitled to, how further efficiency savings might be identified and how the difficulties with the representation of GEL's true financial position can be addressed before any future price control is determined.

The OUR believes that further work on these areas should await the end of GEL's 2005/06 financial year when the most up-to-date financial information is available. The OUR intends to seek independent expert opinion on the key areas so that a position can be determined that will further inform future price control work. This review will seek to take account of GEL's concerns with the presentation of its accounts, T&R's views on the appropriate return it expects from GEL and issues associated with the commercial operation of the company and ensuring that the needs of customers and the impact any decisions may have on them are fully considered.

The OUR intends to commence this work in quarter 2 of 2006 along with a more detailed efficiency review of the company. The OUR would hope to commence by Autumn a review of the price control that will apply from April 2007 with a view to having that completed in early 2007. GEL may now introduce its revised tariffs from 1st January 2006 with a further price change to take effect from 1st April 2006.

Appendix A: Final Decision

Determination of the Maximum Levels of Charges which may be applied by Guernsey Electricity Limited in respect of electricity services

1. The Director General of Utility Regulation in accordance with:

   - condition 20.1(c) of the Electricity Licence issued to issued to Guernsey Electricity Limited on 1st February 2002 (as amended); and
   - his duties, powers and functions, under the Regulation of Utilities (Bailiwick of Guernsey) Law, 2001 set out in sections 2, 4 and 5 respectively and in particular sections 2(a), 5(a), 5(e) and 5(g) of that law; and
   - section 5 of the Electricity (Guernsey) Law 2001 and particular section 5(1)(f) thereof; and
   - his finding that Guernsey Electricity Limited has a dominant position in the electricity retail market.

   hereby determines that the maximum levels of charges that Guernsey Electricity Limited may apply to the provision of those electricity services, defined in paragraph 4, are those specified in paragraphs 5 and 6 below.

2. Unforeseen delays notwithstanding, it is expected that the maximum levels of charges which may be applied by Guernsey Electricity Limited, as set out in this Determination shall come into effect no earlier than 1st January 2006 and then the second set maximum levels of charges should come into effect no earlier than 1st April 2006. The second maximum levels shall apply until 31st March 2007 subject to the provisions of paragraph 3 hereof.

3. This Determination is subject to review, either in whole or in part, by the Director General, where the Director General considers this necessary and/or appropriate or at the request of Guernsey Electricity Limited having regard to his duties and functions under Law, including the Regulation of Utilities (Bailiwick of Guernsey) Law, 2001, and the Electricity (Guernsey) Law, 2001.

4. The scope of price control will include the following Guernsey Electricity services

- Standard Tariff:
  - Standing charge; and
  - Unit charge.

- Super Economy 12:
  - Standing charge;
  - Low rate unit charge; and
  - Normal rate unit charge.

- Industrial Economy Tariff – High Voltage Supplies:
  - kW charge (April-October);
  - kW charge (November-March);
  - Low rate units;
  - Normal rate units;
  - Installed capacity charge; and
  - Power factor charge.

- Industrial Economy Tariff – Low Voltage Supplies:
  - kW charge (April-October);
  - kW charge (November-March);
  - Low rate units;
  - Normal rate units
  - Installed capacity charge; and
  - Power factor charge

- Maximum Demand Tariff – High Voltage Supplies:
  - kW charge (April–October);
  - kW charge (November-March);
  - All units;
  - Installed capacity charge; and
  - Power factor charge.

- Maximum Demand Tariff – Low Voltage Supplies:
  - kW charge (April-October);
  - kW charge (November-March);
  - All units;
  - Installed capacity charge; and
  - Power factor charge.

- Heat Pump Tariff:
  - All units.

- Non-Peak Tariff:
  - Standing charge; and
  - All units.

- Superheat Tariff:

- Standing charge; and
- All units.

- Public lighting Tariff:
  - Standing charge; and
  - All units.

- Boiler Tariff:
  - Standing charge; and
  - All units.

5. **Maximum Levels of Charges which may be applied by Guernsey Electricity Limited in respect of electricity services for period 1st January 2006 to 31st March 2006**

Guernsey Electricity Limited shall ensure that the charges which it applies to the electricity services shall not exceed the following increases for the period 1st January 2006 to 31st March 2006:

RPI + 1.7%

6. **Maximum Levels of Charges which may be applied by Guernsey Electricity Limited in respect of electricity services for period 1st April 2006 to 31st March 2007**

Guernsey Electricity Limited shall ensure that the charges which it applies to the electricity services shall not exceed the following increases for the period 1st April 2006 to 31st March 2007:

RPI + 1.7%

7. This Determination shall come into effect on 1st January 2006 and shall continue in force until 31st March 2007 unless changed, amended, replaced or revoked by the Director General.

Appendix B: Interim Approach to Shareholder Return

A further alternative has been examined by the OUR to determine the level of economic return to the shareholder that might be provided for within GEL's allowable revenue given the issues raised by the historic evidence and the need to understand the implications of this. The DG is of the view that on the basis of opportunity cost to the shareholder, there is an argument to justify such a return. This is essentially the return the States as owner might otherwise realise on the capital received from the sale of GEL at a market price. To the extent that this is a foregone dividend each year there may be a reasonable argument for such an approach. An assessment of the level at which this should be set requires an assessment of the asset base which is problematic in the circumstances and therefore return on turnover (sales) is the approach preferred by the DG in this instances.

Return on turnover (or sales) is a standard ratio for setting performance measures in sectors to assess the required rate of return where it eliminates the need to estimate the total capital employed. Such an approach is generally associated with sectors having either a low level of fixed assets or a high level of intangible assets or both. As can be seen below return on capital employed can be re-expressed as follows:

$$\mathbf{ROCE = EBIT/Q \times Q/A,}$$
$$\mathbf{= ROS \times Q/A}$$

- Where **Q** is sales (turnover)
- **A** is total capital employed; and
- **ROS** is the ratio of earnings to sales.

Given the lack of robustness of using the asset base of GEL as a basis for determining a return to the shareholder there are obvious attractions in this approach. The scope for error entailed by such a provisional approach would not appear to holds risks for the availability of capital to GEL given that its approach to funding is not to raise this from private investors, while the States have not indicated any intention to privatise GEL.

In terms of the appropriate return on turnover for a business such as GEL, a number of decisions by regulators have been made with reference to a return on turnover approach. This precedent provides some indication of the rate that may reasonably be applied to GEL. In seeking a return on turnover comparator, the general practice is to consider a variety of companies with similar characteristics in terms of capital structure, proportion of bought-in services and functions etc. Given certain features of GEL, such as the capital intensive nature of part of its business GEL is obviously not the standard form of business where such an approach is used. However, its financial capital structure and relatively low risk competitive environment suggest the level of return on turnover is expected to be lower than that seen in more competitive market environments and this is taken into account when making such comparisons.

The Competition Commission has in several cases settled on 1.5% as a normal return as in the case of BT's calls to mobile business. As a further comparator, Scottish Hydro-Electric passes through generation, transmission and distribution costs to customers and performs marketing, customer service and billing. In this sense, while

GEL is a vertically integrated electricity provider it is also able to pass-through such costs to customers. The Competition Commission decided a normal return of 0.5% was appropriate in this case. By comparison investigations into pharmaceutical wholesaling and retailing suggested higher returns on turnover of between 1and 2 per cent while the OFT, in relation to its investigation of BSkyB's retail business, did not believe a return on turnover above 1.5% was justified.

While the difficulties of comparing GEL with the above businesses are apparent given in most cases the different markets in which they operate, GEL does not operate in a market environment where the risks to shareholder capital are at the levels seen in the above investigations. Given the provisional nature of this area a range of between 0.5-1% as a return on turnover is the more likely range for GEL. The DG will provide a return on turnover of 1% for this price control.

Appendix C1: (confidential)

Appendix C2: (confidential)

Appendix C3: (confidential)

Appendix D: Security of Supply and RAV

A further consideration in arriving at an opening regulatory asset value specific to this price control is the security of supply policy which has been in place for some time and which is expected to remain in place for the foreseeable future. This policy has been considered on a number of occasions both by the States (in January 2003) and by consultants acting for the States (Mott McDonald). The security of supply policy has been endorsed by these reviews and the DG is not proposing to take a different view. The security of supply policy does however carry significant additional costs since the policy requires that there should always be sufficient on-island generating capacity or imports from France to meet demand in the event that the two largest sources of electricity generation are not available. This is commonly known as a security criterion of "n-2".

Given this there are two specific consequences relevant to the assessment of a market value approach to the assets. Firstly, the level of income generated by the assets of the business is likely to be well below the level of income expected of an electricity provider with the scale of GEL's generation capacity given the amount of additional plant needed to satisfy the "n-2" security of supply policy. Secondly, the maintenance of a full staffing complement and other support required to ensure this spare generation capacity is not only immediately available but also that resources such as staffing and support levels are able to sustain a prolonged period of full generation (possibly beyond 6 months) has significant implications for the operating costs of the business, and therefore the profits generated by the business. The security of supply policy is therefore a material factor likely to reduce the market value of GEL's assets on the assumption such a policy would continue into the future.

Ends/