Office of Utility Regulation

Proposals for the Price Regulation of Network and Retail Electricity Services

Consultation Paper

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1. Introduction

In Guernsey, electricity is a fundamental part of the fabric of everyone's life and we have grown accustomed to expecting to receive an electricity supply as soon as we flick a switch, as well as expecting to have supply connected up to new premises, homes or businesses, as a matter of course. Indeed, electricity is perceived as a social good which is critical to the wellbeing and economic development of the island.

No matter what the main business of the Island is in the future, the prosperity of Guernsey's business community and residents will be based on the assumption that there is and will continue to be an underlying reliable, secure, efficient supply of electricity. These factors will become increasingly pivotal while growth in the financial and tourism industries underpins Guernsey's economy.

For example, the ability of Guernsey's financial industry to compete and operate efficiently on the global stage is becoming critically dependent on electronic communications, computing and information technology and consequently the cost of maintaining a secure and reliable supply of power. Similarly, tourism and general day to day living in Guernsey relies on electricity, as it underpins most of our activities and those of our visitors.

The States of Guernsey as part of its overall policy, initiated a change in the electricity regime in Guernsey in February 2002 with the commencement of new legislation governing Guernsey's electricity market, and the commercialisation of the former States Electricity Board which was transformed into Guernsey Electricity Limited (GE), a wholly States owned company. The aims of these measures are to:

- ensure that Guernsey consumers receive the best in terms of price, choice and quality for the electricity services provided, and to

- ensure that Guernsey has a vibrant, innovative and sustainable electricity sector.

Under the new legislation, the Director General of the Office of Utility Regulation ("OUR") is charged with a wide range of functions and duties. In carrying out those functions, the Director General wishes to consult with interested parties wherever timescales allow. This paper is one of a number of consultation documents that will be issued to assist the Director General in formulating the regulatory framework for Guernsey's electricity sector.

This paper sets out the Director General's views regarding the use of price regulation for a licensee that holds a dominant position in the markets for network and retail services in the electricity sector. It describes the legislative and licensing background that allows the Director General to impose price regulatory conditions, the potential forms of regulation available and the Director General's views on the most appropriate type of regulation for Guernsey's network and retail electricity sectors. Comments are sought on the proposals outlined in the paper.

This consultative document does not constitute legal, commercial or technical advice. The Director General is not bound by it. The consultation is without prejudice to the legal position of the Director General or her rights and duties to regulate the market generally.

2. Structure and Comments

2.1. Structure

The rest of this paper is structured as follows:

Section 3: describes the licensing regime and relevant definitions
Section 4: sets out the legislative background to price regulation
Section 5: asks, “Why is explicit price regulation needed?”
Section 6: considers the various regulatory approaches that could be adopted in the Guernsey electricity sector
Section 7: addresses the most appropriate type of control for Guernsey
Section 8: sets out the possible scope of any control
Section 9: considers the level of control
Section 10: Conclusion
Annexes I to III: Supporting information

2.2. Comments

Interested parties are invited to submit comments in writing on the matters set out in this paper to the following address:

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All comments should be clearly marked “Comments on Electricity Price Regulation Consultation Document” and should arrive before 5pm on 30th September 2002.

All comments are welcome, but it would make the task of analysing responses easier if comments reference the relevant question numbers from this document. In line with the policy set out in Document OUR01/01 – “Regulation in Guernsey; the OUR Approach”, responses will be available for inspection and any material that is confidential should be put in a separate Annex and clearly marked so that it can be kept confidential.

The Director General regrets that she is not in a position to respond individually to the responses to this consultation, but she proposes to conclude the work on price control in electricity early in 2003.

3. Licensing Regime and Definitions

3.1. 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 Director General adopted by the States of Guernsey[1].

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.

3.2 Current Licensing Regime

The States of Guernsey has issued a number of States Directions to the Director General in relation to the licensing of electricity activities in Guernsey. In accordance with those Directions the Director General issued the first licences for electricity generation, conveyance and supply to the incumbent electricity company – GE - on 1st February 2002. Each licence contains specific provisions in relation to the introduction of competition which are set out below:

- GE holds a conveyance licence on an exclusive basis for a period of ten years. Thus, no other operator may be granted a licence to build and operate a network to convey electricity in Guernsey for ten years until 2012;

- GE holds a supply licence on an exclusive basis for one year. Therefore no other operator may be granted a licence to supply electricity directly to homes and businesses for one year, until February 2003; and

- GE holds a generation licence with no exclusivity. Consequently, any other interested party may apply for and may be granted a licence to generate electricity in Guernsey.

Therefore, although the market for generating electricity is, in principal, already open to competition, under the current regime no other operator may build or operate a conveyance network and no operator may supply electricity directly to customers. This means that no

[1] Billet d'Etat No.XVIII 2001, pages 1263-1264

company can lay electricity cables and anyone generating electricity must use the existing electricity network of GE to convey that electricity from their generation plant to customers. Furthermore, because only GE may sell electricity to end customers, any company generating electricity would have to sell that electricity to GE, which in turn can sell it on to customers.

3.3 Additional Definitions

Against this background, the States of Guernsey's final Direction to the OUR included a request to the Director General to review the impact of the introduction of competition into the supply market; to complete this review within twelve months from 1st February 2002; and to make recommendations on the introduction of competition in the supply market[2].

In undertaking the review, it has become apparent that although the generation, conveyance and supply functions currently defined in the Electricity Law are suitable for describing a vertically integrated monopoly provider of electricity services, they are not consistent with the functions required when considering the introduction of a fully liberalized electricity supply market.

Therefore, in order to consider the potential introduction and implications of supply competition, the Director General has considered the market (in document OUR 02/24) in a manner that is not completely consistent with the current incumbent's existing Generation, Conveyance and Supply Licences. Instead of the three functions of supply, conveyance and generation, the following terms have been used:

- Retail;
- Network; and
- Generation market

For consistency and in order to ensure that this consultation also takes into account the possibility of changing market definitions, the terms "Retail", "Network" and "Generation Market" are used throughout the rest of this paper when assessing the role that price regulation may play in Guernsey's electricity sector[3]. Definitions of these terms are provided in Annex III. When the final recommendations to the States in relation to competition in the supply market are completed and appropriate States Directions issued as needed, these final set of definitions will be set. Any final price control put in place will have regard to these developments.

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[2] The issues surrounding the viability of allowing competition in the supply market are considered in depth in the consultation document OUR02/24 – "Designer Markets – Options for Guernsey's Retail and Generation Electricity Markets". The result of this review will have direct implications regarding the period of exclusivity that the current incumbent possesses for supplying electricity to end users. If the review concludes that competition in Guernsey's electricity supply market will not, or will not in the near future, create positive net benefits, then it may be the case the current incumbent's period of exclusivity could be extended. This will clearly not be the case if supply competition unambiguously creates positive net benefits.

[3] If the final recommendation to the Board of Industry includes a recommendation that the retail market should be opened up for competition, the Director General will include a recommendation as to any necessary adjustments to the legislative and licensing framework to ensure that it is consistent with the terms described above. Furthermore, these definitions correspond to those used in consultation document OUR02/24 "Designer Markets – Options for Guernsey's Retail and Generation Electricity Markets"

4. Legislative Background to Price Regulation

Section 5(1) of the Electricity (Guernsey) Law, 2001, provides that the Director General may include in licences such conditions as she considers necessary to carry out her functions. The Law specifically provides that such conditions can include (but are not limited to):

- conditions intended to prevent and control anti-competitive behaviour[4]; and
- 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[5] in a relevant market[6].

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

"The Director General 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 Director General to regulate the prices that a licensee charges for its electricity services in a way and for a period that she deems appropriate, provided the licensee has a dominant position in the relevant market.

In Guernsey, one firm currently generates electricity and imports electricity via an inter-connector with Jersey. The same firm also has access to the only distribution and supply network on the island, which it owns. It is thus the only firm currently capable of supplying electricity to end users in Guernsey across this network. This position, however, may change if there is a States Direction to remove the exclusive privilege granted to GE in the supply market, following the conclusion of the Director General's investigation on behalf of the States.

However, even if retail competition is considered appropriate, it will take time to become effective, as potential entrants must mobilise resources to enter the market and then persuade

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[4] Condition 5(1)(d) of the Electricity (Guernsey) Law, 2001.

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

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

"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.

customers to switch from the current incumbent. Customers are only likely to switch suppliers if their electricity bill reduces sufficiently. This will only occur if effective competition develops in the generating market and access to the incumbent operator's network is on fair and reasonable terms. Otherwise retailers will not be able to source electricity at prices lower than those offered by the current incumbent and will subsequently find it difficult to offer lower prices to prospective customers.

The Director General is of the view that even if retail competition is considered an appropriate way forward for the Guernsey market, the evolution of effective competition in the retail market is likely to take some time and will, to an extent, be dependent on developments in the generation market, meaning that the current incumbent is likely to retain significant market power in the near to medium term.

The Director General has found that GE possesses a dominant position in the generation, conveyance and supply markets[7]. Given this, it is also the case that GE will possess a dominant position in the generation, network and retail markets, as there is no practical difference when applying the two sets of definitions because GE is likely to remain dominant across the whole of the supply chain for the foreseeable future, regardless of whether retail competition is permitted or not.

Consequently, the Director General believes that it is necessary to investigate whether it is appropriate to impose some form of explicit price regulation on the current incumbent, GE, as it will continue to enjoy a position of dominance in the short to medium term.

[7] Document OUR 01/05, "Decisions Under the Electricity (Guernsey) Law, 2001 – Decision Notice and Report on the Consultation Paper", Section 3.

5. Why Is Explicit Price Regulation Needed?

In an industry where the incumbent is currently a monopolist and is likely to maintain a dominant position for some time, explicit price regulation is often needed in order to protect consumers' interests.

5.1. The Protection of Consumer Interests

If there were effective competition in Guernsey's retail electricity market, firms would be encouraged to innovate to meet consumers' demands, operate in a cost efficient manner and rigorously assess the viability of their future business plans. This would be in the consumers' interests, as they would generally obtain the best service available at the most efficient price.

By contrast Guernsey's retail electricity market possesses a monopolist/dominant operator that also has a dominant position in all other markets throughout the electricity supply chain and is subsequently in a position of considerable economic strength that may allow it to act against the consumers' interests. For example, dominant firms can absorb their own operational inefficiencies by passing them onto consumers in the form of excessive prices.

They can also raise their prices unnecessarily to recoup the losses they make through poor investments, as they have little need to underpin their investment decisions with a full analysis of the associated costs and benefits. Such pricing behaviour can undermine the social objectives of (a) maintaining the affordability of electricity provision, which enhances the overall wellbeing of the society both now and in the future, and (b) promoting economic growth. In such an environment regulation, particularly in the form of price control, is generally required to ensure that the monopolist/dominant incumbent is not passing unnecessary costs onto consumers and that certain services will continue to be delivered at affordable rates to all sectors of the community.

A secondary benefit of well targeted price control at the retail level is that it can be utilised to reduce barriers to entry, which can potentially promote the evolution of competition. Well targeted retail price controls can reduce the dominant incumbent's ability to deter or dislodge emerging competitors through cross-subsidisation aimed at retaining or growing its retail business in areas where it is facing the most threat. For instance, if a new entrant was considering entering the market and focusing on attaining high net worth industrial customers, the current incumbent would have an incentive to offer these customers discounts whilst increasing the price levels that other customers pay. This would not only make it difficult for the potential new entrant to compete, but cross-subsidisation would maintain the current incumbent's profitability. Targeted price control can constrain the incumbent's ability to behave in such a manner by setting price floors and ceilings.

This may be relevant for the development Guernsey's electricity retail market because if the legislative framework and regulatory environment is set up to encourage new entrants into the retail sector, effective competition will only develop if the potential threat and application of anti-competitive practises is minimised.

5.2. Access Charges

Moreover, given that there is a possibility of Guernsey's retail electricity market being opened up to competition, it is also necessary to consider whether it is appropriate, at this point, to implement some form of price control over the prices that the dominant incumbent can charge prospective retailers to access its network.

The dominant incumbent has been granted a legal monopoly with respect to its network business for a period of ten years and could use this privilege as a barrier to entry. It is possible that if not checked the dominant incumbent could charge new retailers excessive prices to access its network, which would place undue pressure on prospective retail entrant's costs, thereby reducing expected margins and profits and discouraging entry into the market. The possibility of this threat having any practical relevance in the short to medium term depends critically on anticipated developments in Guernsey's generation market.

Even if Guernsey's retail electricity market is opened up to competition, it is likely that new entrants will only be able to compete effectively with the current incumbent if they are able to source electricity at lower cost than that produced by the dominant incumbent. In order for this to occur, new entrants would need to be able to obtain electricity from a number of diverse generating or import companies.

Effective competition in Guernsey's generation market and in the supply of imports is likely to take time to develop and it would seem most appropriate that an explicit price control relating to access charges should be developed in tandem with the evolution of a competitive market so as to ensure that all players and potential players in the market can be involved in the process. If, following the conclusion of the Director General's market review, there is a States Direction aimed at facilitating and supporting competitive entry into Guernsey's electricity sector within a specific time period then explicit price regulation of the access prices the dominant incumbent can charge will be considered within that timeframe. In the meantime, when addressing price regulation within the retail market, the costs of the network will be assessed and taken into account, thus implicitly controlling these costs.

5.3. Conclusion

The Director General believes that, regardless of whether Guernsey's retail electricity market is opened up to competition, for the new legislative and regulatory environment to sufficiently protect consumers' interests, some degree of explicit price regulation of the dominant incumbent's activities is required at the retail level.

By contrast, although the Director General acknowledges that some form of explicit price control for network access prices may be required when the evolutionary path of effective competition becomes more certain, it is not appropriate, at this current juncture, to set out an explicit form of price control for such charges.

Question a, Section 5 – *Do you agree with the Director General's view that there is a need for explicit regulation of the retail prices of the dominant incumbent in the Guernsey market, regardless of whether the retail market is opened up to competition or not? If not, please state why and support your answer.*

Question b, Section 5 *– Do you agree with the Director General's view that, at this current point in the development of Guernsey's electricity sector, it is not appropriate to set out an explicit form of price control relating to the dominant incumbent's access charges? If not, please state why and support your answer.*

6. The Regulation of Guernsey's Electricity Sector

Proceeding on the basis that there is a need for explicit regulatory control, it is necessary to consider the form of regulation which may be appropriate for Guernsey's retail electricity market. This requires an assessment of:

- the types of regulation available; and
- an analysis of the most suitable type of regulation for Guernsey's retail electricity market.

6.1. The Types of Regulation Considered

The Director General believes that there are four main options for the design of price control[8]:

- case by case approval of price changes;
- rate of return regulation;
- profit sharing; and
- incentive regulation.

Each of these options are discussed below on a general level. Section 6.2 addresses the application of particular types of control within the Guernsey electricity market.

6.1.1. Case by Case Approval

Case by case regulation is a form of price regulation that has been applied in many jurisdictions in Europe prior to the introduction of independent regulatory authorities and prior to the development of competition. Regulated firms are required to submit all proposed price changes to the relevant authority. These are then assessed and either allowed, disallowed or granted with certain specific conditions.

The main advantages of this form of regulation are that it:

- does not require a significant amount of time to initially implement the regime; and
- it ensures that every price change can be scrutinised to assess its impact on both consumers and the market in general.

[8] The Director General considers these options to be most applicable to the Guernsey market, given its current stage of development. There are, however, many other theoretical forms of regulation that are considered in the academic literature, such as sliding scale, rate of return bandwidth, yardstick, partial cost adjustment and menu of contracts regulation. Sliding scale and rate of return bandwidth regulation are more sophisticated versions of standard rate of return regulation and suffer, albeit to a lesser extent, from the same problems as standard rate of return regulation. Yardstick, partial cost adjustment and menu of contracts regulation can be relatively complex to apply, requiring a high level of accurate information to be made available and maintained. They have subsequently not been used a great deal in practice because the regulatory burden on both the regulated company and the regulator is substantial.

There are, however, a number of disadvantages with case by case regulation. These are:

- it provides little incentive for the regulated firm to respond to consumer demands and to operate as efficiently as possible;

- its day to day running is time consuming and resource intensive, particularly if every price change is to be thoroughly scrutinised, thus increasing the regulatory cost both for the firm and regulator;

- the regulated firm is faced with a high degree of uncertainty and effectively it cannot make commercial decisions without prior approval from the regulatory authority;

- any emerging competition also faces uncertainty with respect to the regulatory action that will be taken when assessing any price alterations proposed by the regulated firm and therefore it cannot properly plan its own commercial decisions;

- isolated case by case regulation may not be suitable for industries where there are multi-product offerings; and

- the information available to the regulator to assess the impact of each request for a price change may be incomplete and may not clearly identify all consequential impacts (given the case-by-case nature of the assessment), potentially leading to poor decisions.

6.1.2. Rate of Return Regulation

Rate of return regulation places a constraint on the returns a company can earn. This effectively limits the regulated company's profitability, thus preventing excessive gains. Rate of return regulation has been widely used in the USA. In recent years, however, there has been a trend towards incentive regulation as rate of return regulation was not producing the efficiency gains anticipated.

The main advantages of rate of return regulation are:

- it can result in the company having a lower cost of capital and lower required returns; and

- it provides a degree of certainty with respect to the period that a specific control is in place.

The main disadvantages are:

- rate of return regulation does not directly control the prices the firm can charge and subsequently provides less of an incentive for efficiency gains via cost reductions or the redesigning of service delivery;

- it can lead to excessive fixed investment or "Gold Plating". This unnecessarily boosts the capital base from which returns are calculated, allowing for a higher level of profit to be achieved within the overall rate of return constraint. As price levels are not constrained the costs of such investment and any associated mark-up is often passed on to the consumer; and

- the review period is relatively short, with annual or bi-annual reviews of the allowable rate of return taking account of any unexpected efficiency gains. Not only does this create greater regulatory costs, it also constrains the time period within which the regulated company can keep any gains from cutting costs, thus reducing the incentive for the firm to cut costs.

6.1.3. Profit-Sharing

Profit-sharing is largely a theoretical construct and it has not been widely used. It allows the regulated firm to keep a specified share of profits above a certain level, with the rest returned in some way to consumers, generally through the requirement of lower bills in future periods.

The potential advantages of such a scheme are:

- it appears intuitively fair in that excess profits are returned directly to customers; and

- it could reduce the risk that the Director General would have to reassess a price cap or rate of return regime if the profits of the regulated firm were deemed to be persistently "excessive".

The main disadvantages are:

- the incentives for efficiency gains and delivering profitable new services are limited because the regulated company does not retain all the gains from cost reduction or service improvements within the period of the control;

- the regulatory framework would have to deal with defining and closely tracking a suitable measure of profit. This could well be an onerous and expensive task for both the OUR and the regulated company; and

- the lack of precedent also creates a level of uncertainty as to its effects and operation in the market.

6.1.4. Incentive Regulation

Incentive regulation has been used by many electricity regulators to regulate various sectors of the industry. In countries such as the UK, Ireland, Spain, the Netherlands, Norway, Austria, Argentina and Australia, price controls have proven relatively successful in squeezing out efficiency gains from the respective dominant incumbents. Incentive regulation generally takes the form of an "ΔRPI-X" and "ΔRPI+Y" mechanism, where "ΔRPI" is the change in the retail price index and "X" and "Y" are factors derived from the financial and economic modelling work undertaken by the regulator. The "X" factor determines the minimum real rate of decline of prices over time, whilst the "Y" factor specifies the maximum real rate of price increases over time. For instance, if "X" was set at 6% and the rate of increase in the retail price index was 4%, then the price charged would have to decline by 2%.

When formulating the scope of an incentive regulatory framework, the Director General can choose to implement a number of such conditions that relate to different products/tariffs, one or more overall conditions relating to a number of products/tariffs or one or more overall conditions with a sub-set of further conditions for specific individual products/tariffs. The Director General can also apply various conditions across the markets constituting the supply chain, provided the firm possesses a dominant position in each market. Incentive regulation is based on the assumption of cost-based pricing. That is, it attempts to relate prices to efficient cost levels and therefore operates most effectively when the costs of the regulated firm can be defined and allocated with accuracy.

The main advantages of incentive regulation are that:

- price caps generally run for two to five years. This provides the regulated company with strong incentives to drive for operating efficiencies because it keeps the benefits of any efficiency gains it makes within the period of the price cap;

- it encourages the regulated firm to rigorously assess the commercial viability of its investment decisions because it cannot recoup losses via excessive price increases;

- price caps can be directed at certain products which are considered important to meet social objectives or encourage competition;

- both the incumbent and potential new entrants have a degree of certainty regarding the range of future prices levels; and

- consumers benefit from the price constraints and by receiving the benefit of any further cost reductions in future periods.

The main disadvantages of incentive regulation are:

- the costs associated with implementing and applying it. These, however, are likely to be less than those that arise through other forms of regulation;

- the risk of setting the price control too tightly and thereby reducing the incumbents service levels and commercial viability, whilst retarding competition because of the lack of profitable opportunities (a potential distortion of the market process);

- the risk of setting the price control too loosely, thereby allowing the company to make and retain excess profits during the price control period; and

- a potential lack of flexibility to respond to changes in the market place if the price cap is set for too long.

6.1.5. Summary

A table is provided at Annex II which contrasts the advantages and disadvantages of the differing forms of regulation considered.

6.2. The Electricity Sector in Guernsey

Having considered the various regulatory options available, this section focuses on the structure of Guernsey's electricity market and considers what form of regulation would be most appropriate. In forming a view, the Director General believes she needs to consider:

- the degree of market power that the enterprises currently operating in Guernsey's electricity markets have;

- the prospects for the development of effective competition in the retail and generating markets; and

- how best to ensure efficiency in the delivery of electricity services if competition is insufficient to do so.

6.2.1. The Structure of the Guernsey Electricity Sector

An innovative, efficient, sustainable and possibly competitive electricity sector is critical to the continued development of Guernsey's economy and the current and future development of the structure of the industry will be of paramount importance in achieving these objectives. Detailed information describing the current structure of Guernsey's electricity market can be found in the following documents, which are available on the OUR website:

- OUR02/19: "Electricity in Guernsey: Moving Forward from Policy to Implementation"; and

- OUR02/22: "Designer Markets – Options for Guernsey's Retail and Generation Electricity Markets"

Broadly speaking, however, Guernsey's electricity sector can currently be characterised as:

- possessing a vertically integrated monopolist, that until recently was not subject to the pressures of commercialisation;

- possessing considerable excess on-island capacity in order to maintain security of supply;

- currently satisfying the majority of annual energy requirements via imports from France through the inter-connector with Jersey;

- having a level of import availability which is dependent on demand in Jersey;

- a market where it is still unclear whether the introduction of retail competition would unambiguously provide Guernsey with positive net benefits;

- where effective competition would still be some way off even if retail competition was considered appropriate; and where;

- there is potentially scope for service provision improvements.

Given these characteristics, the following section sets out the reasons why incentive regulation may be the most appropriate choice for Guernsey.

6.2.2. Incentive Regulation in Guernsey

In industries where there has historically been a monopoly incumbent, which has also been in public ownership for a period of time, there is a tendency for the industry to operate in a less efficient manner than when competition is rife and there has been commercial pressure to reduce costs and innovate. Generally, such inefficiencies have been borne by consumers in the form of higher prices and poor service levels. Guernsey has historically had a monopoly States-run incumbent, which is now being changed into a commercially operated but still wholly States-owned company. In these circumstances, it would appear that, incentive regulation of the form "ΔRPI-X" and "ΔRPI+Y" possesses many advantages because:

- it can create incentives for the incumbent to operate efficiently and to consider investment decisions in a more rigorous and commercial manner, as the cost of poor decisions cannot be recouped through higher prices;

- directed price control may reduce the dominant incumbent's ability to deter entry via cross-subsidisation designed to maintain market share, if Guernsey's retail market is opened to competition;

- directed price control can be used to ensure that if retail competition develops it does not benefit some consumers at the expense of others. This is of particular relevance in relation to low income and low user groups;

- regardless of whether retail competition is considered appropriate for the Guernsey market, the current incumbent is likely to remain dominant in the medium term. Consequently, in the medium term, it could maintain prices at a higher level than those associated with an efficient operator facing competition, unless there is price control; and

- both the incumbent and any potential new entrants will have a degree of certainty regarding the range of future price levels, which will assist them in their business planning.

Although there are clear advantages with respect to incentive regulation, there are certain potential disadvantages associated with it. These must be weighed against the advantages of price regulation generally and incentive regulation of the form "ΔRPI-X" and "ΔRPI+Y" in particular. In addition, potential disadvantages may be mitigated or avoided altogether. Potential disadvantages are:

- the cost or total effort required to implement and apply incentive regulation;

- the potential to set the price control too tightly or loosely; and

- the possible lowering of the incumbent's service levels.

Costs
Any form of price control carries certain costs both for the regulator and the firm. The firm incurs compliance costs, as it has to devote managerial and analytical resources to meeting the informational and pricing requirements of the Director General. The Director General also incurs the costs of running and developing the explicit regulatory regime. However, given the clear need for a form of price control as described in section 5 and the relative burdens imposed by the various forms of regulation, the Director General considers that incentive regulation of the form "ΔRPI-X" and "ΔRPI+Y" imposes the least burden on the regulated firm and the regulator and that the benefits of incentive regulation will offset the costs in the longer term.

Lack of Flexibility and the Potential to Set the Price Control Too Tightly or Loosely
The second potential disadvantage is that price controls may not have sufficient flexibility to respond to market developments if they are set for a long period. Furthermore, if the price cap is set too tightly, it can risk the overall commercial viability of the regulated firm or bias benefits in favour of consumers' at the expense of the regulated firm. Alternatively, the price cap may be set too loosely, allowing the regulated firm to gain excessive profits, thus reducing its incentive to drive for efficiency gains and inhibiting the scope for consumer benefits. All these issues are related to the duration of the control, which is discussed in section 8.2.

Service Levels
The final potential disadvantage of incentive regulation of the form "ΔRPI-X" and "ΔRPI+Y" is that in a bid to reduce costs because of price capping, the regulated firm allows its service levels to decline and consumers simply gain a poorer service than they did previously. There are two safeguards against this, which have been seen to work in other markets.

Firstly, provided the retail market is opened up to competition and effective competition evolves in Guernsey's generation market a reduction in service levels on the part of the incumbent is likely to attract new entrants to the market who can provide an improved service for the same or lower cost. In such a case, a reduction in service levels by the incumbent becomes counter-productive because it can lead to a rapid reduction in market share as effective competition will evolve more rapidly. Thus there is an incentive for the regulated firm to maintain or even improve service levels.

Secondly, regardless of whether effective competition develops or not, any form of price control will complement the licence requirements for explicit service agreements, with strict compensation clauses for failure to meet the required standard. Consequently, the Director General does not consider the lowering of the incumbent's service levels as a credible disadvantage of imposing price controls.

6.3. Conclusion

The Director General believes that, given the need for price regulation in Guernsey's retail electricity market, incentive regulation of the form "ΔRPI-X" and "ΔRPI+Y" is the most appropriate form to apply, primarily to protect consumers' interests but also to help support the development of competition if the retail market is opened up.

Question a, Section 6 - *Do you agree that, given the current structure of the Guernsey market, incentive regulation of the form "ΔRPI-X" and "ΔRPI+Y is appropriate for Guernsey's retail electricity market? If not, please suggest alternatives and give your reasons*
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7. The Type of Control

This section discusses the potential types of price and revenue controls that could be applied under an incentive regulation regime. In forming a conclusion regarding what form of control would be most appropriate for Guernsey's electricity sector, the Director General has considered the advantages and disadvantages of the various forms of control with respect to the retail market being open and not open to competition.

Caps could be applied to:

- individual tariffs;
- the price of a basket or baskets of services;
- average revenue; and
- total revenue.

7.1. Individual Tariffs and Tariff Baskets

Caps on individual tariffs would focus on those prices which need to be controlled and leave the regulated firm with discretion to act freely with respect to other tariffs or to introduce new tariffs. Such a form of control is often appropriate when it is possible to identify what tariffs should be controlled in order to enhance social welfare. Alternatively, a price cap can be placed on one or more baskets of services. This allows the regulated firm to adjust individual product prices within the basket(s). Such flexibility can be restricted by further controls on the prices of individual services within a basket(s) to constrain the regulated firm's ability to cross-subsidise when it is not considered beneficial for consumer welfare or, in certain circumstances, the development of effective competition. It should, however, be noted that price capping using a basket(s) becomes more analogous to individual tariff control the greater the number of sub-caps placed on products within the basket(s). Furthermore, an approach based on the price of a basket(s) of services may need to be revised when new services are developed or current services increase in importance within the period between setting successive controls. If necessary, however, such services could be controlled separately.

7.2. Average Revenue and Total Revenue

Controls on average revenue and total revenue generally imply that there is no direct control of the prices that the regulated firm can charge for certain services, unless the methods are used in tandem with price controls. Revenue controls may restrict the Director General's ability to ensure that certain social objectives are fulfilled. Furthermore, although the capping of total revenue provides the regulated firm with a strong incentive to reduce costs in order to make more profit within the allowable revenue ceiling, it can inhibit growth and the development of new services. This is unlikely to be appropriate in an environment where there is the potential to develop new retail products and services that could enhance overall demand, which is true of Guernsey's electricity sector. This is particularly the case if retail competition is considered appropriate for Guernsey's electricity sector, as revenue controls could reduce the incumbent's ability to compete.

7.3. Conclusion

The Director General believes that controls should be based on tariffs rather than revenues because revenue controls may inhibit the regulated firm's ability to provide new retail products and services and could also impair its ability to compete if the development of retail competition is considered appropriate.

Question a, Section 7 - *Do you agree that controls on the regulated firm should be based on prices rather than on revenues? If not, what alternative would you suggest and why?*

Question b, Section 7- *If so, which type of price control, individual tariff(s) or basket(s) of tariffs, do you consider to be most appropriate for the Guernsey market? Please provide reasons for your answer.*

8. The Scope of Control

The scope of the price control needs to relate to the general aims of the incentive regulation proposed. These are:

- capturing as much of the consumer benefits as possible on a sustainable basis, without unnecessarily threatening the viability of the company;

- encouraging a suitable response from the incumbent to changing consumer demands;

- giving the incumbent the incentive to make the greatest possible operating efficiency gains;

- ensuring that the price control meets certain social objectives; and

- if required, encouraging the development of effective competition in the supply of retail electricity services.

Question a, Section 8 - *Are these the right objectives for determining the scope of the price control for the dominant incumbent? If not, please suggest additions to or deletions from the above list and provide your reasons.*

Issues which need to be addressed with respect to these objectives are:

- what services should be controlled;

- the duration of the control;

- carry over; and

- compliance.

8.1. What Services Should Be Regulated

Given the current structure of the electricity market and the general uncertainty surrounding the future level of competition, its direction and timing, the Director General believes that the number of services should initially be relatively broad. This should provide sufficient incentive for the dominant incumbent to pursue efficiency gains. Such services in the Guernsey context could include:

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

- Super Economy 12:
  - Standing charge;
  - Low rate unit charge;
  - High rate unit charge

- Industrial Economy Tariff – High Voltage Supplies:
  - kW charge (April-October);
  - kW charge (November-March);
  - Low rate units; and
  - High rate units

- Industrial Economy Tariff – Low Voltage Supplies:
    - kW charge (April-October);
    - kW charge (November-March);
    - Low rate units; and
    - High rate units

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

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

- Heat Pump Tariff:
    - All units;

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

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

- Standby Tariff:
    - Kw charge; and

- Buy Back Tariff

The above does not constitute the final set of services that may be price capped, but is indicative of the types of services that could be included. The responses to this consultation and work undertaken by the Director General may bring to light further services that may be considered important with regards to providing the dominant incumbent with efficiency incentives, protecting consumer welfare and potentially supporting the development of competition, or may suggest that some of the services outlined above should not be in the basket.

Question b, Section 8 – *Do you agree that the above list of services is appropriate when considering what services should be regulated, or are there other services that should also be considered or some that should be omitted? Please provide the reasons for your answer.*

8.2. Duration of Control

The challenge when setting the time frame of control is to attempt to secure the right period of regulation before review, with respect to the way the market is anticipated to evolve and the anticipated efficiency gains available. Generally, price caps are imposed for two to five years.

The case for a period of control shorter than five years is generally that technological progress, demand and competition are either changing rapidly or there is considerable uncertainty surrounding their future development. Consequently, the form and goals of economic controls might well have to change before the end of the five years to accommodate such shifts in the industry's economic environment. Particular issues arising with individual and new services could all create pressure for revisions within a five-year period and make the actual longevity of the controls uncertain. Initial estimates of potential efficiency gains may also prove to be too cautious.

The counter-argument is that for the dominant incumbent to have a strong incentive to reduce costs, it must have a reasonable degree of certainty that it can benefit from the gains it makes in performance without fear of the Director General intervening to extract these gains. Uncertainty increases as the next review approaches or if intervention to revise the controls is expected. Although a longer duration for controls is particularly appropriate where there is little prospect of competition, if there appears to be significant short term efficiency savings available it may simply retard the speed at which the incumbent assesses where and how it can reduce its cost base.

On balance, the fact that the dominant incumbent has been run as a public utility monopoly for the majority of its existence suggests that it is likely to be in the position to accrue efficiency gains in the short term. This coupled with the uncertainty surrounding the introduction of retail competition and the subsequent evolution of effective competition, as well as issues regarding Guernsey's security of import supply and the economic value of the inter-connector being dependent on Jersey's demand for electricity, suggests that a degree of flexibility with respect to reviewing the levels of the price cap would be beneficial, both from the incumbent and regulator's perspective. Consequently, the Director General believes that initially any price control measures should be set for a period of three years, with the option to review after two years.

Question c, Section 8 *- Do you agree that three years, with the option to review after two years, is the appropriate length for the initial period of price control given the characteristics of Guernsey's electricity market? If not why should it be shorter or longer?*

8.3. Carry Over

Whatever the form of the price cap, the regulated firm may exceed the price reductions required in a particular year. If this is the case the Director General has to decide whether the regulated firm should be allowed to carry over any excess reductions into a subsequent year or years. There are three potential options open to the Director General with respect to carry over. These are:

- allow the automatic carry over of price reductions above the target, so that the dominant incumbent can reduce prices by less in the following year or years than it would have to if the price cap was applied on a strictly annual basis;
- allow carry over but only at the discretion of the Director General; and
- do not allow any carryover.

If carry over is not permitted, the regulated firm is only likely to make the minimum price reductions required in each year. Despite the fact that consumers will know that their service charges will decline by the required amount in each individual year under such a scenario, it will deny them the benefit of any additional price reductions that may have been attainable earlier. By contrast, automatic carry over could provide the incumbent with an incentive to arbitrarily change its tariffs, within the scope of the price control, such that in some years price reductions exceed the level required. This could create uncertainty and confusion about trends in future tariff levels.

If carry over is discretionary it leaves the position unclear for the regulated firm. It does, however, give the Director General some flexibility within the period of the controls if the demands made on the regulated firm to reduce its prices prove to be insufficient. The Director General can encourage the regulated firm to reduce prices by more than the prescribed yearly amount in the short term, whilst allowing the regulated firm to reduce prices by less than it would be able to in subsequent year(s) if the price cap was applied on a strictly annual basis. If retail competition were to develop in Guernsey, this could well be advantageous to the regulated firm because it would provide slightly more pricing flexibility at a time when competition would be increasing.

The Director General considers that some carry over should be permissible in order to provide incentives for the dominant incumbent to realise the maximum amount of efficiency gains in the short term. A decision on whether it will be discretionary or automatic will be made jointly with the final decision relating to the duration of the control.

Question d, Section 8 *- Should the dominant incumbent be allowed to allocate any over achievement in one year against its target(s) for future years? Please state your reasons.*

Question e, Section 8 *- If so, should carry over be automatic or at the discretion of the Director General and for what reasons?*

8.4. Compliance

Whatever the form of the price control adopted, in order for it to be effective there must be measures in place to ensure compliance. Section 4 of this paper sets out the licensing and legislative background to the Director General's proposals on price regulation in the Guernsey market. The Director General proposes to set out price control rules by direction under licence condition 20.2 of GE's licence conditions.

Part VI of the Electricity (Guernsey) Law, 2001, contains a number of provisions designed to enable the enforcement of such measures and defines the process to be followed in the event of a licence breach.

8.4.1. Direct Imposition of Penalties

First, where a licensee is in breach of a licence condition, the Director General, having given notice to the licensee of the breach and of her intention to issue any directions in relation to the breach and allowed a period for response by the licensee, may issue a direction to the licensee requiring it to take action to remedy the breach (section 29 of the Electricity (Guernsey) Law, 2001).

Failure to comply with a direction under section 29 of the Electricity Law is an offence and the Director General may impose any penalty available under the Law or the licence. Penalties that the Director General may impose directly are set out in section 30 of the Electricity Law and include:

- suspension of licence;
- revocation of licence; and
- imposition of a financial penalty on the licensee of an amount up to 10% of the turnover of the company

The law also provides for the procedure to be followed in the event of a decision to impose a penalty, including notification and representation by the licensee, and a right of appeal by the licensee against decisions.

8.4.2. Criminal Proceedings

Alternatively or in addition to, the Director General may take proceedings against the company for breach of licence and if the court finds the company guilty, the penalties that it may impose include:

- on conviction and indictment, imprisonment for a term not exceeding two years, or a fine of an amount to be set by the court, or both; and
- on summary conviction, imprisonment for a term not exceeding six months, or a fine not exceeding level five on the uniform scale or both.

8.4.3. Injunctions

The Director General may also seek an injunction in the Royal Court against a licensee where there is a likelihood of a repeat offence or where there is the possibility of an offence occurring (section 6 of the Regulation of Utilities (Bailiwick of Guernsey) Law, 2001). Such an injunction would be enforceable by the Court and penalties for breach of an injunction would be those available to the Court.

8.4.4. Conclusion

A breach of price control could have a significant effect on consumers and competition and the Director General would, in considering the most appropriate penalty, take all relevant matters into account including, inter alia,:

- the effects of the breach and whether those effects could be reversed;
- the seriousness of the breach;
- the degree to which the action by the licensee was reckless or deliberate;
- any action that the licensee took to remedy the breach;
- the period of time for which the contravention continued; and
- all other relevant matters set out in the Laws.

The Director General will apply the penalty she considers most appropriate having regard to the licence breach in question.

9. The Level of Control

The OUR is committed to adopting a rigorous approach to setting any level of price control deemed necessary. Whatever the form of price control proposed for the regulated firm, an analysis and financial/economic modelling exercise relating to the underlying costs and potential efficiency gains, as well as the potential impact of competition on the relevant market, the regulated firm's position within this and the impact on vulnerable users will be undertaken when assessing what the level of price control should be. The main stages in the process will include:

- establishing robust estimates of the regulated firm's allowable asset base and capital costs;
- reaching an objective decision regarding the cost of capital facing the regulated firm;
- obtaining the best information possible on the operating costs of the regulated firm;
- forming a view on how the evolution of any competition will impact on the regulated firm's revenues, costs and market share;
- assessing how any competition could effect vulnerable users and what measures can be put in place to ensure their protection; and
- reaching a judgement on the efficiency gains that the regulated firm can be expected to make.

The level of control will then be set such that if the regulated firm operates efficiently, it can expect to cover its costs, including the appropriate cost of capital, over the period of the control.

In formulating a view regarding the level of price control the Director General will require a detailed, fully justified and supported business plan from the dominant incumbent. The Director General will liaise with the dominant incumbent in order to establish:

- the form and structure of the business plan required;
- the information required and the period for which the information is needed;
- what methodologies to use for the various components of the business plan; and
- the timeframe in which the business plan has to be submitted to the Director General.

This should ensure transparency of approach and provide the dominant incumbent with a clear understanding of why the information is being requested and how it will be employed.

The business plan and the supporting documentation underpinning the dominant incumbent's rationale and justification for its view will assist, but not be the sole point of reference, in developing a base point from which the Director General can form a judgement on whether the dominant incumbent is operating in an efficient manner and focusing on cost reduction. It should, however, be noted that in circumstances where the Director General has not been provided with sufficient information or information has not been made available to her, she may need to rely on such other sources as she considers appropriate, such as estimates and benchmarking studies. The Director General reserves the right to take all relevant information into account and to adapt the work required to finalise this matter as necessary.

10. Conclusion

This paper sets out the Director General's views and proposals for:

- introducing a retail price cap on a dominant incumbent and the mechanism considered appropriate to do this;
- the types of services likely to be included in the price cap; and
- the issues that will be taken into account when assessing the levels of the overall price cap and any specific controls on certain services with in the overall basket(s).

Comments on these proposals are welcomed and should arrive no later than 5.00 pm on 30th September 2001, at the address stated in section 2.2 of this paper. The Director General proposes to conclude the work on price control in electricity early in 2003.

Ends/

ANNEX I – A Summary of Questions

For ease of reference a summary of the consultation questions is provided below.

Question a, Section 5 – *Do you agree with the Director General's view that there is a need for explicit regulation of the retail prices of the dominant incumbent in the Guernsey market, regardless of whether the retail market is opened up to competition or not? If not, please state why and support your answer.*

Question b, Section 5 *– Do you agree with the Director General's view that, at this current point in the development of Guernsey's electricity sector, it is not appropriate to set out an explicit form of price control relating to the dominant incumbent's access charges? If not, please state why and support your answer.*

Question a, Section 6 *- Do you agree that, given the current structure of the Guernsey market, incentive regulation of the form "ΔRPI-X" and "ΔRPI+Y is appropriate for Guernsey's retail electricity market? If not, please suggest alternatives and give your reasons*

Question a, Section 7 *- Do you agree that controls on the regulated firm should be based on prices rather than on revenues? If not, what alternative would you suggest and why?*

Question b, Section 7- *If so, which type of price control, individual tariff(s) or basket(s) of tariffs, do you consider to be most appropriate for the Guernsey market. Please provide reasons for your answer.*

Question a, Section 8 *- Are these the right objectives for determining the scope of the price control for the dominant incumbent? If not, please suggest additions to or deletions from the above list and provide your reasons.*

Question b, Section 8 – *Do you agree that the above list of services is appropriate when considering what services should be regulated, or are there other services that should also be considered or some that should be omitted? Please provide the reasons for your answer.*

Question c, Section 8 *- Do you agree that three years, with the option to review after two years, is the appropriate length for the initial period of price control given the characteristics of Guernsey's electricity market? If not why should it be shorter or longer?*

Question d, Section 8 *- Should the dominant incumbent be allowed to allocate any over achievement in one year against its target(s) for future years? Please state your reasons.*

Question e, Section 8 *- If so, should carry over be automatic or at the discretion of the Director General and for what reasons?*

ANNEX II – A Comparison of Different Forms of Regulation

	Type of Regulation			
	Case by Case	**Rate of Return**	**Profit Sharing**	**Incentive**
Advantages	• Quick to implement • The impact of every price change is assessed • Consumers benefit directly from the regulated firm's prices being controlled.	• Can lead to a lower cost of capital and lower required returns. • Provides a degree of certainty for the period of the specific control.	• Is theoretically fair and there is a degree of certainty over the level of profit allowable. • Reduces the risk of needing to reassess price caps and return rates if profits remain "excessive".	• The longer duration of a price cap provides incentives to drive for operating efficiencies, as the regulated company keeps the gains for the period of the price control. • It encourages a rigorous assessment of investment plans, as the cost of poor decisions cannot be recouped through higher prices. • Price caps can be directed at products that are important for meeting social objectives or encouraging competition. • Both the regulated firm and new entrants have a degree of certainty about the range of future prices. • Consumers benefit directly from the price control and potential cost reductions in future periods.

	Type of Regulation			
	Case by Case	**Rate of Return**	**Profit Sharing**	**Incentive**
Disadvantages	• Incentives to respond to consumer demands are poor, as are the incentives to drive for efficiency gains. • High degree of uncertainty for incumbent and new entrants. • Can retard the commercial decision making process. • Not as applicable to industries with multi-product offerings. • Potential for poor regulatory decisions due to information asymmetry. • High associated cost in terms of time and resources.	• Prices are not directly controlled, reducing the incentive to drive for efficiency gains and improve service levels. • Short review period also reduces the drive for efficiency savings, as the period of gain is severely limited. • Encourages unnecessary investment or "Gold Plating", the costs of which may be recovered through higher prices. • The need for regular reviews increases the regulatory cost for the industry and regulator.	• Prices are not directly controlled and the incentives to drive for efficiency savings and improve service delivery are limited because the company does not receive all of the gains in the control period. • Deciding and tracking what a suitable measure of profit is costly, both for the industry and regulator. • Lack of practical application elsewhere creates uncertainty as to the effects of implementation in the market.	• There is a risk of setting the price control too tightly and reducing the regulated firms service levels and viability, as well as retarding the evolution of competition because of the lack of profitable opportunities. • The risk of setting the price cap too loosely, allowing the regulated firm to accrue excess profits and reducing its incentives to operate efficiently at the expense of potential consumer benefits. • A potential lack of flexibility to respond to changes in the market place if the price cap is set for too long. • The cost associated with implementing and applying incentive regulation.

ANNEX III – Definitions

The definitions of "Retail", "Network" and "Generation Market" are as follows:

Retail
Retail describes the arrangements that govern the sale of energy to end customers – for example the arrangements whereby a customer buys electricity from the current incumbent (currently the only option in Guernsey) or from another retailer (as is the case in the UK where customers can choose who they purchase their electricity from). This term is slightly different from the definition of supply as currently contained in the legislation which includes parts of the low voltage network from the sub-station to customers' premises. Thus when the term "retail competition" is used throughout this paper in the Guernsey context, it refers to competition between market participants who do not build, own or operate any network.

Network
Network describes the electrical network operated by the current incumbent in Guernsey across which electricity is transported. In this paper and in the context of Guernsey this term is used to describe the network (transmission and distribution) in its totality and this is considered to be a monopoly activity that will remain so for the foreseeable future. Consequently, if the retail market described above were to be opened up it would not include any of the network elements, because all network elements are considered to be a monopoly activity. Once again this is different from the definition of conveyance as currently contained in the legislation, as any competitor considering entering the supply market under that definition would have to install additional network equipment from the sub-station to the customer's premises before entering the market.

Generation Market
Generation Market describes the trading arrangements between parties other than end customers. For example transactions for energy between a generator (a business which produces electricity) and a retailer (a business which sells electricity onto end customers) are transactions in the generation market.