Office of Utility Regulation

Review of Guernsey's Retail and Generation Electricity Markets

Report to the Board of Industry

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1. Executive Summary

This Report has been prepared by the Director General of Utility Regulation ("DG") for the Board of Industry ("BoI") in response to a States Direction issued in February 2002. The report considers whether competition should be introduced into the electricity supply market in Guernsey and if so, what form of competition would be most appropriate. The report is submitted to enable BoI to prepare policy recommendations to the States on the future of the electricity sector in Guernsey and for the States to issue any new States Directions to the DG by February 2003.

During her consideration of this matter, the DG has published background papers, held an industry workshop, conducted an open public meeting and issued a public consultation paper inviting responses from interested parties. Throughout the process the DG has noted the need for a solution which is appropriate to Guernsey, and also, that the benefits of any opening up of the market should be demonstrated, and if possible quantified before any costs should be imposed on customers. The responses to the various consultation exercises carried out have been an important part of the DG's considerations, and she is grateful for the input of those who responded.

The Guernsey electricity market is small, with certain unique characteristics. The DG has considered the experience of other markets that share some of Guernsey's key characteristics, to see what lessons can be learned from elsewhere. No other small island jurisdictions have implemented, or are planning to implement, competition in the electricity supply market. The most liberalised markets of the benchmark jurisdictions allow competition in the generation sector, which is similar to the current situation in Guernsey.

This paper considers the three main options for Guernsey which were identified in the consultation paper "Designer Markets – Options for Guernsey's Retail and Generation Electricity Markets". The scope for savings in electricity costs to end customers can come from either -

- lower generation prices as retailers buy from competing generators and/or
- lower costs of serving customers via the retail function (billing, metering, credit control).

It was agreed by all respondents that there is little scope for such savings to be made based on lower generation costs (which represent some 69% of customers end bills), given the existing structure of the electricity industry in Guernsey. Consequentially, price competition would in the short/medium term be limited to competition in the retailing activity, which accounts for only 4% of customers end bills.

Taking into account the available information and applying conservative assumptions on the degree of savings which would be required to encourage customer switching, the DG considers that likely customer savings that could be achieved in this market structure, would be insufficient to provide for meaningful price based competition in electricity retailing. Furthermore, the cost of implementing that competition would be likely to be equal to, or greater than the level of potential savings to customers, thus negating the price benefits.

However, it is noted that the analysis is confined to the Guernsey electricity market only, and material changes, such as widening the scope to include the gas market in Guernsey or widening it to include the Jersey electricity market, could change this outcome.

On the basis of the analysis undertaken the DG recommends to the BoI that:

1. The licensing regime within The Electricity (Guernsey) Law, 2001 should be amended to reflect a slightly revised functional split (Retail, Network, and Generation (which also covers Importation)), as this will facilitate future reviews of the market.

2. The States direct that the following licences be issued to GE for the period ending 31st January 2012:
   - an exclusive licence for supply; and
   - an exclusive licence for conveyance,

   subject to any exemptions granted by the DG under Section 1 (2) of the Electricity (Guernsey) Law, 2001, and that these exclusive licences be continued under the changed functional split set out in recommendation 2, subject to recommendations 3 and 4 below.

3. The States review these arrangements by 31st January 2011, in order to assess the scope for competition from 1st February 2012 onwards.

4. Any material changes in the structure of the energy sector in the Channel Islands prior to 31st January 2011 should bring forward the date of the review of these arrangements and the States reserve the right to amend the exclusivity periods as a result of any such review.

2. Introduction

2.1. Objectives

The States Electricity Board, was commercialised in February 2002 and became a States Trading Company – Guernsey Electricity Limited ("GE"). States Directions[1] to the Director General of Utility Regulation meant that whilst one of GE's historic monopoly activities, generation, was opened to competition at that time, other aspects were not. The States envisaged that the network elements of GE's business would continue to be a monopoly in the medium term, but the decision on the arrangements for supplying electricity to end users was less definitive. The States of Guernsey's Direction therefore included a request to the DG to review within twelve months from 1st February 2002 the impact of the introduction of competition into the supply market and to make recommendations on that issue.

This report represents the DG's review of the market and includes her recommendations to the BoI. It takes into account the responses to the public consultation undertaken by the DG and the results of her investigations. The report this seeks to provide guidance to the BoI by addressing the following questions, which were set out in July's consultation paper:

1. Should competition be introduced into the Guernsey market for the supply of electricity to end customers?

2. If competition should be introduced, what form and degree of competition best meets Guernsey's needs and is most appropriate to the Guernsey market?

3. If competition is to be introduced what are the legal, regulatory and market intervention steps necessary to facilitate the recommended form of competition?

4. What other external factors and market conditions need to be in place to contribute to the success of any recommended approach?

Further detailed documentation on Guernsey's electricity sector is available from the OUR website at www.regutil.gg.

2.2. Approach to the Review

In the course of preparing this report to the BoI, the DG has sought to inform the industry and broader stakeholders in the electricity sector of the issues involved in the introduction of retail competition and related matters and obtain the views and input of these parties for consideration in the review. Since commercialisation in February 2002 the DG has:

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

- Published "Electricity in Guernsey. Moving Forward from Policy to Implementation" (OUR 02/19) February 2002;
- Held an Industry Workshop and Public Consultation on future retail arrangements (17 July 2002);
- Issued a consultation on the options for reform " Designer Markets – Options for Guernsey's Retail and Generation Markets" (OUR 02/24) July 2002;
- Researched comparable jurisdictions to assess whether other island states had introduced or considered introducing competition in supply of electricity to end users and the reasons for their current market structures, and
- Carried out the analysis explained in this report on the potential costs and benefits of introducing competition into the Guernsey supply market.

The DG is grateful for the input that has been provided to her in the preparation of this report by those industry participants and members of the public who have attended the meetings or provided written responses to the consultation. The views received have assisted the DG in formulating her recommendations to the BoI.

2.3. Structure of Report

The rest of this paper is structured as follows:

Section 3: Provides some legal and regulatory background to the electricity market in Guernsey.

Section 4: Sets out the objectives that were taken into account in considering the future of the electricity market in Guernsey**.**

Section 5: Describes the approach taken by the DG in considering the development of Guernsey's electricity sector.

Section 6: Describes the policy options for Guernsey with reference to the balance between competition and regulation and the linkage between the generation and supply markets.

Section 7: Presents analysis of the various options considered.

Section 8: Provides a summary of the findings and sets out the DG's recommendations.

3. Background

This section provides a brief overview of the existing legal arrangements associated with Guernsey's electricity sector.

3.1. Legal Background

The legislative framework for Guernsey's electricity sector is governed by, *inter alia*:

- 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].

3.2. Terminology

This paper uses the following terms to describe the electricity sector:

- **Retail –** this term describes the arrangements that govern the sale of energy to end customers – for example the arrangements whereby a customer buys electricity from GE (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).

- **Network –** this term is used to describe the electrical network operated by GE in Guernsey across which electricity is transported. In this paper and in the Guernsey context we use this term to describe the entire network (transmission and distribution) and consider this to be a monopoly activity that will remain so for the foreseeable future.

- **Generation market** – this term is used to describe trading arrangements between parties other than end customers.

- **Imports –** this term describes importation of energy via interconnection with other jurisdictions i.e. buying power from the European grid via Jersey.

These terms are not totally consistent with the Generation, Conveyance and Supply Licences as set out in the Electricity Law, but are reflective of the functional split within the electricity sector in general and also within GE. In Consultation Document OUR 02/24 the DG noted that should any adjustment to the legislative regime be required arising from the recommendations of this report, these would be identified. This is addressed further in Section 8 at the end of this report.

[2] Billet d'Etat No. XVIII 2001, pages 1263 to 1264

4. Objectives

In considering whether retail competition is appropriate for Guernsey, the DG believes that it is appropriate to judge any potential changes within the context of the broader policy objectives that exist for the electricity sector. In the public consultation, the DG suggested four policy objectives that future reforms needed to be consistent with. Only one respondent queried these objectives, and the comments were primarily concerned with the perceived interpretation of the objectives. Therefore the DG sets out below a more detailed explanation of each of the policy objectives that she considers appropriate and has taken into account when arriving at the conclusions in this report:

1. **Ensure that reasonable demands for electricity are met**. As discussed in Document OUR 02/19, over an appropriate planning horizon sufficient plant should be available both to meet expected demands in Guernsey and provide for contingencies, and in operational timeframes sufficient reserve should be available to restore supply as soon as possible in the event of an outage of either the link or an on-island generator.

2. **Provide efficient prices for electricity customers.** Prices to customers should be as low as practicable within the context of providing a sustainable reliable supply for Guernsey and maintaining quality of service to customers.

3. **Facilitate the economic development of the jurisdiction.** Echoing the specific requirement of the Regulatory Law regarding economic well-being, and recognising the strategic importance of electricity to the island's economy, any future arrangements should meet the policy objectives of underpinning and contributing to the ongoing economic development of the Island.

4. **Meet States of Guernsey policy objectives including environmental policy.** Any changes to the electricity sector should be consistent with the States of Guernsey's overall explicit policy objectives on issues such as security of supply and the environment.

The DG considers that these objectives are fully consistent with the objectives set out in the Regulation Law and reflect the needs of Guernsey. The recommendations in this report have been developed with a view to meeting these objectives.

Later in this document (Section 7), the various options for introducing competition in Guernsey's electricity retail market are discussed. However, an overarching concern is that the DG's recommendation ensures that the primary policy objectives are realised. Therefore the individual characteristics of the Guernsey electricity sector must be borne in mind. These characteristics, e.g. the small size of the Guernsey market (total demand is approximately equal to that of a moderate sized town in the UK), have helped to inform the DG's proposed recommendations.

5. Guernsey's Existing Electricity Sector

5.1. Existing Market Structure within Guernsey

GE was established in February 2002 and generation licences have been available to new entrants from that date. As the process of reform of the electricity sector is evolutionary in nature, few external changes are apparent to customers from this development as the functions carried out previously by the States Electricity Board continue to be performed by GE, although the way in which GE operates is already changing, and is regulated by the OUR.

GE remains a vertically integrated company, carrying out all the functions described in Section 3.2, above and owning the generation assets and the network infrastructure. It is also the only company presently licensed to sell electricity to end customers and to own and operate a conveyance network. It is also responsible for the importation arrangements via the Channel Islands Electricity Group (CIEG) in conjunction with Jersey Electricity Company.

The present[3] split of costs of providing electricity between each of the three groups of activities is:

Retail	*4%*
Generation/import[4]	*69%*
Network	*27%*

The cost of each of these activities, along with the existing structure and potential to develop competition in the retail and generation sectors is central to the assessment of retail competition options that follows in this paper.

5.2. Retail characteristics

Within Guernsey a minority of commercial customers consume a significant volume of energy. Based on data provided by GE, the DG estimates that around 80% of GE's customers are "domestic" and collectively account for approximately 45% of Guernsey's total energy demand. The remaining 20% of customers collectively consume the remaining 55% of total energy used on the Island of Guernsey.

[3] The figures are based upon the DGs assessment of GE cost data for the financial year ending 31 March 2002. The overall cost of generation will lead to year on year changes in this split – higher utilisation of on-island generation would increase the proportion of the overall end customer bill resulting from generation/imports.
[4] These costs are not disaggregated between generation and imports as defined in section 5.2 as the current licensing regime is not structured so as to deliver this split.

5.3. Generation/Import characteristics

Guernsey has a peak electricity demand of 65 MW[5]. This demand is met both by importation across the link and the output of on-island power stations.

GE owns slow speed generation engines totalling 65 MW and peaking Gas Turbine generation totalling 49 MW which in aggregate provides sufficient on-island generation to meet its existing peak demand. The interconnection to France via Jersey has a capacity of 60 MW but availability is significantly less during winter months. Excluding the planned 4 MW Energy-from-Waste plant, GE expects the next new plant project to be on line around 2014 assuming current growth demand levels. However, any significant blocks of demand growth would bring forward this date.

Respondents to the consultation agreed with the reasoning in the consultation paper and the conclusion of the DG that together, the characteristics of the market mean that the scope for incremental development of competition in generation, via new entry, is limited and such competition is unlikely to develop in the short term.

5.4. Network / Conveyance characteristics

The ownership, operation and maintenance of the electricity network is entirely carried out by GE and, in common with practice elsewhere it is not anticipated that there will be any change in this in the medium term. This activity therefore is currently and will continue to be regulated as a monopoly activity.

5.5. Comparisons with Benchmark Jurisdictions

In considering what market structure would be appropriate for Guernsey, the DG researched the arrangements in other small island jurisdictions in order to identify:

(a) whether electricity markets in these small island states had been opened up to competition, in particular retail competition;

(b) if retail competition had been introduced, whether the model adopted could be effectively applied to Guernsey; and

(c) whatever the structure of the market in each case (monopoly, competitive or combination), had there been any economic or other consideration of the feasibility of introducing competition that could help inform this report.

As previously noted, Guernsey has some highly specific characteristics. It is:

- An island;
- Operates its electricity sector independently (i.e. it is not part of a larger market);
- Economically developed;
- Small, in comparison to other independent electricity markets; and
- Interconnected to a larger electricity system (via another similar island).

[5] System peak during 2000/2001 was 59.6 MW. The maximum system demand recorded is just below 65 MW.

No other jurisdiction was identified which shared all these characteristics. Among the jurisdictions that were identified as sharing the first two characteristics were Jersey, Isle of Man, Malta, Gibraltar, Grenada, Cayman Islands and Bermuda. Some of these are significantly larger than Guernsey in terms of demand (e.g. Malta), and only two - Jersey and the Isle of Man - are interconnected.

In researching these jurisdictions the DG noted that none currently have competition in their retail (supply) markets; and of those jurisdictions that responded to specific questions, none were considering or planning the introduction of such competition. There was no evidence that an analysis of the benefits and costs of introducing competition had been conducted in any case.

The DG also considered the initiatives underway in Europe to introduce retail competition, which as currently constituted, would require member states to introduce retail competition by 2005 including the smallest EU State Luxembourg, with a population of 400,000. Furthermore two island jurisdictions (Malta and Cyprus), that are accession countries to the EU are seeking derogations from the EU in respect to the requirement to introduce full retail competition when they join.

Where comment was made, respondents concurred that there were no other jurisdictions that shared all the key characteristics of Guernsey which might be appropriate to benchmark or research further.

No directly comparable jurisdiction was identified and among those that were researched, none, including the two most similar islands (the Isle of Man and Jersey) had introduced retail competition, were planning to do so, or had available any cost benefit or other analysis of the possibility of introducing competition in their markets to assist in this review.

5.6. Wider market reforms

In the consultation paper the DG raised the issue of broader market reforms including (i) a generation/import structure which created multiple, competing generation entities, and (ii) widening the scope of the market beyond Guernsey's electricity sector. These broader market reforms are discussed in turn below.

Multiple Generation Entities

Given the limited likelihood that a competitive generation market will develop via incremental new entry (as discussed in Section 5.3), an option to create such upstream competition would be to further separate existing components of the GE generation business. The generation sector within Guernsey has three major distinct components –

- importation,
- the slow speed diesels, and

- the Gas Turbines (GTs)[6].

It should be noted that these different parts of GE's portfolio operate in different segments of the generation market. The technical and economic characteristics of the plant means that they do not compete against each other, but fulfil complementary roles. The DG thus considers that splitting GE generation along plant type lines would not be likely to lead to the segmented parts of the business competing against each other.

In order to create separate, but competing, generation businesses within GE it would be necessary to create a number of similarly sized portfolios, each capable of fulfilling all of the complementary roles described above. It is reasonable to assume that there would be costs involved in such an exercise, e.g. internal implementation costs for GE and the loss of economies of scale. The DG is not aware of any counterbalancing efficiencies to offset these costs.

The DG noted that whilst the benchmarking of comparable jurisdictions did not provide any evidence to support the introduction of retail competition, it was notable that each of the islands considered operated the electricity industry as a single vertically integrated utility. Where competition was being developed (e.g. Bermuda) the approach taken was to allow new entry in generation – a policy mirroring that adopted in Guernsey.

Larger Market

Another possible means of facilitating the development of a competitive generation market would be to increase the size of the overall market, for example by consolidation of the electricity sector in Guernsey and Jersey into a Channel Islands electricity market. One respondent argued that any such radical change would be difficult to achieve given the multi-jurisdictional issues to be overcome and many prior agreements that would need to be re-considered.

A further possibility would be to widen the market by including the gas sector, thereby creating an "energy" market in Guernsey. Clearly this could be applied after the widening of the geographic market also, resulting in a Channel Islands energy market which would be considerably larger than just the Guernsey electricity market. This alternative was explicitly opposed by one respondent who suggested that the basis for the development of gas sector in Guernsey was fundamentally different to that for the electricity sector. The DG notes, however, that in many liberalised markets the market mechanisms established for gas closely resemble those for electricity.

The DG considers that developments of the electricity sector in Jersey, restructuring of GE or changes to the gas sector in Guernsey may enable alternative competitive outcomes and could increase the scope for customer benefits from a competitive market.

[6] Further detail on the technical characteristics of the Guernsey generation sector is contained in document OUR 02/19

However, such radical changes appear to be unlikely in the short/medium term given the complexity of the issues involved. Furthermore, such matters fall outside the direct scope of the review as the Director General was directed to consider competition in electricity retailing in Guernsey.

If the States of Guernsey wish to address these broader issues, and consider effecting material changes in the market structure by either widening the geographic scope of the market or the product scope of the market, then this would be likely to change the recommendations in this report significantly. In that case the DG recommends that the issues within this report are revisited.

6. Options

In the consultation paper, the DG observed that for competition in retailing to bring benefits, there must be effective competition in generation because if multiple retailers all face the same costs of purchasing electricity from one generator the scope for price competition is limited. Thus, a viable market requires multiple sellers of electricity (generators), multiple buyers of electricity (retailers) and regulated access (at common prices) to the core electricity network to move electricity from the generators to the customers.

The need for multiple buyers and sellers as a pre-requisite for a viable competitive market in retail was broadly accepted by attendees at the industry workshop, public consultation and in responses to the consultation document. However, one respondent also observed that if a new entrant retailer could access common network and generation costs (i.e. it had the same cost inputs as GE's retail business) there could be the basis for competition solely based on efficiencies within the retail function (credit control, meter reading and billing). The DG has noted this view, and it is considered as part of the analysis of the options within Section 8.

Due to some misunderstanding during the consultation process it is important to stress that none of the options described have any impact on the network infrastructure i.e. there would be no need for any additional network build. All of these options are based on the principle that a new entrant retailer would deliver power utilising infrastructure owned and operated by GE subject to regulated charges.

6.1. Retail Market in Guernsey

During the consultation on retail options, the DG presented three broad models that could be adopted:

- **Retail Option 1 - Existing Structure (single buyer / single seller)**. This option would continue the existing arrangements[7] for a specified period, for example ten years. New entry in generation is allowed for in the current licensing regime, with any new entrants selling their output to GE at bilaterally negotiated rates. The commercial terms between a new generator and GE would be subject to regulatory scrutiny. Prices to end customers would be determined by the price control applicable to GE as the dominant player.

- **Retail Option 2 - Retail competition for a limited number of customers.** Under this scenario any customers that met either a size threshold, or specified criteria for market entry (such as metering technology and communications links), would be able to buy from a retailer other than GE. Customers switching from GE and the new retailers would pick up any direct costs associated with opting out of the GE arrangements. It is assumed that these customers would be the

[7] Under these arrangements a new generator would sell its output to GE (as single buyer) which then on-sells the energy to customers (as the single seller).

largest consumers on the island as they had the largest bills and thus would need lower percentage savings to cover the fixed costs of opting out, although a threshold level of absolute savings per annum would be needed.

- **Retail Option 3 - Full retail competition for all customers**. This option assumed that arrangements are put in place to allow customers to switch retailers and not individually face the costs of doing so. This would mean that the costs incurred would be recovered through a different route, potentially by the shareholder, but more likely spread across all customers.

The DG stated that the Office of Utility Regulation is pro-competition and would be interested in facilitating a competitive solution that could bring demonstrable benefits to customers that would outweigh the cost of implementation. Retail Option 1 and Retail Option 3 received some support from the respondents to the consultation with those supporting Retail Option 1 opposing Retail Option 3 and vice versa. The DG received no responses specifically advocating Retail Option 2 and some responses explicitly opposed this option. All three options have been evaluated in Section 7 of this report.

The DG is mindful that any changes can only be justified if they deliver benefits to customers, and the island as a whole. This is particularly important if any change incurs costs that would be faced by customers on the expectation that they would realise benefits in excess of these costs. In the DG's view, such an approach could only be embarked upon if it is demonstrable that the benefits clearly outweigh the costs based on prudent assumptions.

6.2. Generation Market in Guernsey

In order to properly assess the various retail options the DG consulted on what generation market structure should be in place to underpin those options. This is essential if the overall cost of the change is to be considered and therefore the DG consulted on what option should be adopted to enable an analysis of the introduction of retail competition to be carried out.

In all cases, there will continue to be a central role for the network operator (i.e. GE) because the volume of electricity generated and the volume used across the network must be balanced in real time. Therefore GE will continue to be responsible for ensuring that generation dispatch is co-ordinated.

In the case of Retail Option 1 (single buyer / seller) there would be commercial bilateral arrangements in place between GE and new generators and no new generation market structure would be required.

In the case of Retail Options 2 and 3, some mechanism would be essential to manage the commercial and technical relationship between multiple generators and retailers.

The DG consulted on four potential options for the generation sector in Guernsey[8]. Such arrangements would only be relevant if some form of retail de-regulation was agreed by the States, i.e. if Retail Option 2 or 3 were to be adopted. For Retail Option 1 none of the generation options set out below would be required.

Generation Option 1(a) - Contract market for generation with some form of simple administered price for imbalances[9] – system security costs included as part of the imbalance price.

Generation Option 1(b) - Contract market for generation with some form of simple administered price for imbalances – system security costs levied as a separate charge.

Generation Option 2(a) – Contract market for generation with some form of spot market for imbalances. - system security costs included as part of the imbalance price.

Generation Option 2(b) – Contract market for generation with some form of spot market for imbalances – system security costs levied by a separate charge.

Whilst all models are possible the DG noted that the size of the market in Guernsey and the cost associated with the provision of system security place constraints on these choices.

Respondents to the consultation indicated a clear preference for Generation Option 1(b) should a generation market to underpin retail competition be required. This option would provide for a clear way of allocating common costs (e.g. system security) whilst minimising the need for complex central market systems. The DG agrees that Option 1(b) would provide a reasonable balance between the efficient allocation of costs and a simple market mechanism appropriate to a market the size of Guernsey and would offer the lowest cost, most transparent solution.

In the analysis of Retail Options 2 and 3, the DG has therefore assumed that the Generation market would be structured along the lines described in Option 1(b),

[8] Further information on the generation options can be found in OUR 02/24 " Designer Markets – Options for Guernsey's Retail and Generation Markets" available from www.regutil.gg
[9] i.e the difference between a parties contracted position and actual generation or demand in a given period

7. Analysis

This section focuses solely on consideration of the Retail Options 1, 2 and 3. Based on the observation in Section 7, the DG assumes that either Retail Option 2 or 3 would be supported by Generation Option 1(b) with the consequential costs in developing a generation market.

This section is in four parts, first a quantitative assessment of the options followed by a qualitative assessment of each of the three options.

Throughout this section the "**£ per annum per customer**" figures are annualized to reflect the time value of money. The analysis is conducted over a five-year horizon, with capital expenditures assumed to be recovered over that timeframe.

The quantitative assessment is based on the best available information and seeks to identify at a reasonably high level, the costs and benefits of the options, but it does not constitute a comprehensive and fully detailed cost-benefit analysis which would have been far more costly and time consuming to conduct. Given the conclusive nature of the outcome of the high level analysis the DG does not consider it appropriate to incur more costs in a more detailed analysis.

7.1. Quantitative assessment

Based on data provided by GE, and summarised in section 5.1 the DG estimates that around 69% of revenue received by GE is spent on generation activities i.e. providing energy via both imports from France and utilization of GE's on-island generation. The historic level of customer's bills has funded a generation sector in Guernsey with sufficient capacity to satisfy organic demand growth for a significant number of years. In addition, the DG estimates that 27% of the remaining revenue finances the on-island network and the final 4% supports the retailing interface with the customer to cover such aspects as metering and billing[10].

In the Statement of Opportunity[11], GE estimates that there will be no requirement for significant new entry into the generation market (excluding the 4 MW Energy-from-Waste plant) prior to 2014 assuming a 3% demand growth. Any block demand growth[12] would bring forward this date. At this time, neither the DG nor GE are aware of any confirmed projects that would lead to block demand growth. There was a consensus view from respondents to the consultation that scope for new generation entrant prior to 2014 is low and competition within the generation market is unlikely to appear in this timescale.

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[10] Ofgem estimates the share of costs within the UK to be as follows, generation 42%, network including metering 27% and supply 30% however the typical customer bill is significantly lower and generation costs have fallen by around 40% over recent years.

[11] The Statement of Opportunity is available from GE's website www.electricity.gg.

[12] The scope for block demand growth is discussed at length in OUR02/19 "Electricity in Guernsey - Moving Forward - from policy to implementation" available from www.regutil.gg.

It is likely therefore that GE will remain the dominant generation licensee for the foreseeable future, notwithstanding the lack of legal or regulatory barriers. Due to the non discrimination and cross subsidy provisions within GE's licence, any new entrant retailer will be faced with purchasing energy and delivery services from GE at the same prices that GE delivers energy to its own retail business. Thus, many costs faced by a new entrant retailer and GE's retail business will be common, leaving little or no scope for a new entrant to compete on price against GE.

Furthermore, any efficiency gains realised by the regulatory regime through price controls would accrue to all customers irrespective of their retailer. Therefore, any successful new entrant retailer would need to deliver cost savings to customers solely via being more efficient at the retailing function. Based on GE data, the DG estimates that the existing cost per customer of GE's retailing activity is in the order of £30-35 per customer per annum – assuming costs are allocated equally over the whole customer base (excluding public lighting). In order to add clarity to the analysis, the DG utilises a central estimate of £33 per customer. Therefore any new entrant need to carry out this activity at a lower cost than GE, still make a return on the service to make its business viable and would also need to create sufficient potential savings to customers to induce them to switch retailers. Unless new entrant retailers can either (a) reduce energy costs, or (b) sell different products to customers and compete in areas other than price, the scope to reduce the absolute level of prices via retailing efficiency is limited to £33, even if one assumes that no other costs arise (an assumption which is further addressed in section 7.3).

A MORI study conducted for Ofgem in November 2001[13] concluded that a mean saving of £78 was the incentive that the surveyed customers (those who have not already changed retailer) required as an incentive to switch. However, a National Audit Office Report in January 2001[14] demonstrates that in the 18 months since the market in the UK was opened up, 65 million customers have switched for an average saving of £45 per customer per annum. The DG notes that both these level of savings exceed the absolute level of retailing costs in Guernsey.

There have been no explicit surveys of Guernsey consumers to determine what level of savings they would require to switch retailers and no responses to the consultation indicated that customer behaviour would differ significantly from the UK. Therefore the DG has used the data from these extensive surveys to proxy customer propensity to switch. Assuming therefore that customer behaviour in Guernsey is similar to that in the UK, the highest level of potential savings which could be achieved by customers (£33 per annum) would be lower than the level of savings required to encourage switching.

Further assessment of the costs of alternative retail options, and the potential level of customer savings which could be achieved, is set out in the following sections. In the

[13] "Experience in the competitive domestic electricity and gas markets" conducted by MORI for Ofgem, November 2001
[14] Office of Gas and Electricity Markets; Giving Domestic Customers a Choice of Electricity Supplier, 5 January 2001

analysis which follows the DG uses the working assumption that a domestic customer would require savings of at least £30 in order to switch from GE to a new entrant retailer. This figure is somewhat lower than the MORI data indicates was the case within the UK. This approach is designed to test a scenario where customers are seen as being price sensitive and keen to move. This provides a "best case" outcome for retail competition to be judged against.

7.2. Single buyer/single seller (Retail Option 1)

Implementation of Retail Option 1 would give rise to no incremental costs. At a generation level GE would still need to incur some costs associated with the development and implementation of the technical and commercial codes necessary to underpin the existing arrangements which allow for new entry in generation.

Under Retail Option 1 the retailing costs of GE would be subject to price control regulation by the DG. It would be inappropriate for the DG to speculate on what savings, if any, could be made in this area by GE until such detailed analysis and modelling of business plans to support her review of price control has been undertaken. However, if these costs were lowered through price control, it would serve to reduce the retail cost against which competitors could make savings. Any reduction through price controls of GE's retail activities would thus serve to further limit the scope for competition in retail in the absence of varied sources of generation.

7.3. Full Retail Competition (Retail Option 3)

The basis for competition identified by the respondent which supported Retail Option 3 was in terms of greater efficiency in the retail functions, i.e. the respondent believed that it could undertake the retail function at a price which was lower per customer than that which GE charges. For example, savings could result from leveraging assets, such as billing systems. Billing costs could also be reduced by targeting cheap to serve customers i.e. those customers willing to pay by monthly direct debit. These retailing cost savings would be fixed per customer – i.e. they are not related to a customer's level of consumption.

If customers need both an absolute level of saving, and a percentage saving, it is reasonable to assume that this degree of saving would be less attractive to a large customer than a domestic customer (as it would form a smaller proportion of the large customer bill). The respondent was also of the view that retail competition would be more effective if there was upstream competition, but saw this as being restricted in the short term, hence competition based on retailing efficiency was possible, if not ideal.

Operational costs

Based on comments made by respondents, the DG estimates that the ***incremental*** retailing cost, plus a margin or return to a new entrant could result in a retailing price from a new entrant as low as £10 per customer. This assumes that an existing customer base would be leveraged, and that only certain customers who were cheaper to serve (e.g. those paying by monthly direct debit) were targeted. This appears competitive when initially compared to the £33 per customer cost estimated for GE – suggesting that a new entrant could offer savings to customers of perhaps £23, although this is still below the switching threshold of £30.

However, it would be unrealistic to assume that all GE's costs would disappear for a customer that switched, as GE would continue to provide central market functions (potentially including GE's billing of network service charges to the retailer and the collection, aggregation, and reconciliation of central settlement data) to support competition. Based on the information provided by respondents and other available information, it would appear that a reasonable estimate of these central market function costs would be in the region of £10 per customer per annum. From the existing retail cost of £33 incurred by GE, the DG thus considers, on the basis of the information available to her, that perhaps £13 per customer per year could realistically be saved by switching to an alternative retailer (i.e. the customer pays £10 to new retailer for billing plus £10 for central market cost, a total cost of £20, compared to the current GE cost of £33).

Capital costs

The costs of implementing retail competition could vary greatly depending on the solution adopted. Including the costs of implementing Generation Option 1(b), the DG's high level estimation is that the cost per customer (annualised over 5 years) would range between £44 per customer per annum for a fully metered solution, to £13 per customer per annum for a simple profiled solution[15].

Costs and Benefits

On a best-case scenario the costs of implementation (i.e. around £13 per customer) are similar to the possible savings to customers (also around £13 per customer). On any more complex solution, the costs of full retail competition outweigh the likely benefits to customers.

As already stated, the DG is using a working assumption that to switch retailer customers would need to see at least a £30 per annum in savings. Thus, on a low cost scenario, potential customer savings are approximately £30 per annum short of this level, and on a high cost scenario, over £60 short (i.e. there is an increased cost, not a saving). Even assuming zero implementation and operational costs, which is clearly unrealistic, the maximum possible saving for customers is the £33 per annum which is only £3 higher than the assumed switching threshold of £30.

On the basis of the analysis undertaken the DG concludes that the cost of implementation for Retail Option 3 is likely to be greater than, or equal to, the level of potential customer savings, and that an insufficient financial incentive would exist within the Guernsey market with its present structure, to induce customers to switch retailers.

[15] It should be noted that on the basis of the DG's overall assessment of the possible costs and benefits of alternative approaches to the introduction of retail competition, the DG did not consider it prudent to assess such costs in anything other than high level terms.

7.4. Retail Competition for large customers only (Retail Option 2)

A similar analysis can be applied to Retail Option 2. The costs of introducing Generation Option 1(b) would still arise. Additionally, customers switching would pick up the direct costs of switching – which would include interval metering and central settlement costs.

Estimations of the cost per customer are highly dependent on assumptions on how many customers might switch. The DG has not undertaken analysis based on alternative switching rate levels as she considers it highly unlikely that these large customers would be prepared to switch for total savings of £33 per annum – a figure that equates to 0.1% of the typical annual bill.

Using an alternative assumed saving of 1% of an annual bill would require savings of approximately £315 to be made by large customers to encourage switching. If the central market costs to allow switching and some form of multilateral generation market are allocated across the small number of large customers, instead of the 27,000 customer base under Retail Option 3 the costs per customer would be very high potentially in the region of £600 to £900 per customer per year.

Option 2 would therefore appear viable only if retailers could access generation at costs lower than the average cost of GE generation from imports and on-island production. If savings of around 5% could be made on the energy side then Option 2 would be viable. However, the DG notes that no respondents quantified potential savings that could be passed onto customers through lower energy purchase costs and there was a consensus that the development of a competitive generation market which would provide for such a possibility was unlikely in the medium term

In the DG's assessment the annual £ per customer saving from retail efficiencies would be an insufficient incentive to induce switching by large customers.

8. Summary and Recommendations

8.1. Summary

This section summarises the DG's findings in relation to the introduction of retail competition in Guernsey, answering the questions posed in Section 2.1.

1. ***Should competition be introduced into the Guernsey market for the supply of electricity to end customers?***
Based on the public consultation and the analysis undertaken, the DG does not believe that given the existing market structure, the best interests of Guernsey would be served by the introduction retail electricity competition in the medium term. A defined period of exclusivity for GE would therefore be appropriate, in order to provide the industry with the necessary stability and certainty to invest in the future.

In the absence of retail competition, customers would continue to be protected by continued regulation of both price and service provided by the dominant incumbent, GE.

2. ***If competition should be introduced, what form and degree of competition best meets Guernsey's needs and is most appropriate to the Guernsey market?***
Whilst retail competition appears inappropriate, the DG recognises that competition in the generation market will be able to evolve as originally envisaged with GE performing the central role of single buyer consistent with retaining the network and retail monopoly.

3. ***If competition is to be introduced what are the legal, regulatory and market intervention steps necessary to facilitate the recommended form of competition?***
The DG concludes that that the best interests of customers in Guernsey would be served by continuing GE's exclusive right to sell electricity onto end customers for the present. This conclusion based upon present market characteristics, and as noted in paragraph 4 below, material changes in the market conditions could give rise to circumstances where competition in retail became more viable and could bring net benefits.

In her consideration of the potential to introduce retail competition, the DG considered what licensing /legislative changes would be necessary to support such a market. In the DG's view, the present licensing structure would not be appropriate for any competitive regime. Whilst any reconsideration of competition in retailing will be a matter for future years (either after a fixed period of time or after some trigger event) she considers that there would be merit in putting in place a licensing regime which is consistent with a competitive market now. This would not only provide a building block for any future arrangements but would also reflect the regulatory approach to the sector which the DG is taking.

The DG considers that the electricity sector requires long-term certainty within which to develop highly capital-intensive projects. This point was supported by all respondents. Therefore, the DG envisages that the GE would be granted exclusive licences for the period ending 31st January 2012 covering supply and conveyance activities in conjunction with the continuing non-exclusive generation licence, which includes importation of energy across the existing link. This is consistent with the current period of exclusivity period for the conveyance licence in accordance with the States Directions issued in February 2002.

The DG will continue to issue licences to new entrant generators or any entity developing a new link to France. It should be noted that some activities will continue to be exempt from the requirement to be licensed. The present licence exemptions are governed by Section 1(2) of the Electricity Law[16] and the DG recommends that the States ensure that such exemptions can be made in the conveyance as well as the supply markets so as to facilitate potential States policy decisions on exempted activities. Existing exemptions already allow small scale generators, such as solar panels to be developed with exports to be sold to GE, or small volumes of energy to be sold by generators directly to customers across their own network.

The DG considers it appropriate for the States to review the electricity sector prior to the proposed exclusive licences expiring so that an informed decision can be made regarding the arrangements for the electricity sector from 1st January 2012 onwards.

4. What other external factors and market conditions need to be in place to contribute to the success of any recommended approach?

The DG recognises that development of the electricity sector in Jersey, radical restructuring of GE or changes to the Gas sector in Guernsey could lead to different conclusions but is not aware that any such changes are envisaged in the medium term. The recommendations and analysis within the report are based on this assumption.

Whilst the DG considers that retail competition would be unlikely to benefit customers under the present market structure, it must be recognised that this structure could itself change. Possible changes include, for example:

- the liberalising of the Jersey market;
- the creation of a competitive retail market in gas;

[16] The existing exemptions are set out in document OUR02/06 "Direction on Exemptions from the Requirement to hold a Licence - Issued under section1 (2) of the Electricity (Guernsey) Law 2001" available from www.regutil.gg.

- significant step changes in demand requiring new generation build;
- the development of a new interconnection; or
- a change in the ownership or structure of GE.

These changes could separately, or in combination, make retail competition viable and the DG recommends that the States make any period of exclusivity subject to the fact that any material change, including (but not limited to) those set out above, will trigger a re-examination of whether some form of retail competition would be appropriate for Guernsey at that stage.

8.2. Recommendation

The DG recommends to the BoI that the States instigates changes to capture the position summarised above as per the explicit recommendations below:

RECOMMENDATION A. **The DG recommends that the licensing regime with The Electricity (Guernsey) Law, 2001 should be amended to reflect the function split (Retail, Network, and Generation (which also covers Importation).**

RECOMMENDATION B. **The DG recommends that the States Direct that the following licences be issued to GE for the period ending 31st January 2012**:

- **an exclusive licence for supply activities; and**
- **an exclusive licence for conveyance activities,**

subject to any exemptions granted by the DG under Section 1 (2) of the Electricity (Guernsey) Law, 2001 and subject to recommendations C and D below.

The above Direction should also state that when the legislation is changed consistent with Recommendation A, the exclusive licences above should be replaced with exclusive licences for retail and network activities respectively.

RECOMMENDATION C. **The DG recommends that the States review these arrangements by 31st January 2011, in order to assess the scope for competition from 1st February 2012 onwards.**

RECOMMENDATION D. **The DG recommends that in the event that there any material changes in the structure of the energy sector in the Channel Islands prior to 31st January 2011 should bring forward the date of the review of these arrangements and the States should reserve the right to amend the exclusivity periods in recommendation B following any such review.**

