

Office of the Sark Electricity Price Control Commissioner
Draft Determination for the Purpose of Consultation
1st October 2019

Summary

1. Sark Electricity Limited (SEL¹) is the only commercial supplier of electricity on Sark. It is currently charging 85 p/kWh for electricity that it supplies. As far as I am aware, that is the highest per kWh price for electricity supply in the world. I have investigated the costs of production of electricity on Sark and, in particular for that purpose, taken into account the circumstances of SEL and Sark, including Sark's geographical location. I have concluded that, if the company's existing assets were operated efficiently and economically, a price of around 53 p/kWh would be sufficient to allow SEL and its investors to enjoy a reasonable return or profit margin on the assets which SEL operates for the purpose of generating and distributing the electricity it supplies.
2. As such, my preliminary view is that the price of 85 p/kWh, is not fair and reasonable. In coming to this view, I have not considered the costs of alternative generation technologies, nor the risks to less affluent customers of wealthier ones investing in their own power generation. Nevertheless, I will keep both these matters under review.
3. SEL has previously indicated that I have misinterpreted the Law in coming to this preliminary view. Firstly, SEL believes that the Control of Electricity Prices (Sark) Law, 2016 ("**The Law**"), does not allow me to scrutinise the company's actual costs in order to judge whether they are reasonable or not.
4. SEL contends that my consideration of what constitutes a reasonable profit is flawed. I have considered the views of SEL on these issues. I disagree. I have set out my review of the issues and my conclusions in detail in this Draft Determination.
5. Further to section 14 of the Law before making a Determination, the Commissioner may consult such person in relation to such matter arising in relation to the Determination as the Commissioner sees fit. In addition (see section 14(2) of the Law) the Commissioner must consult SEL as a regulated supplier as well as the Policy and Finance Committee of the Chief Pleas of Sark.
6. By way of consultation, I now publish this Draft Determination and would be grateful for any comments to be sent so as to reach me as soon as possible but by 22nd of October at the latest. These responses will be shared with SEL who will be given two weeks to respond to any representation I receive as part of this consultation exercise. Having considered all these representations, including those from SEL, I will decide whether it will be necessary to proceed to a formal Determination.

¹ The Sark Electricity Company Limited (TSECL) was split into two companies, Sark Electricity Holdings and Sark Electricity Limited in 2014. The two companies are managed as one, and will be referred to as SEL.

Background

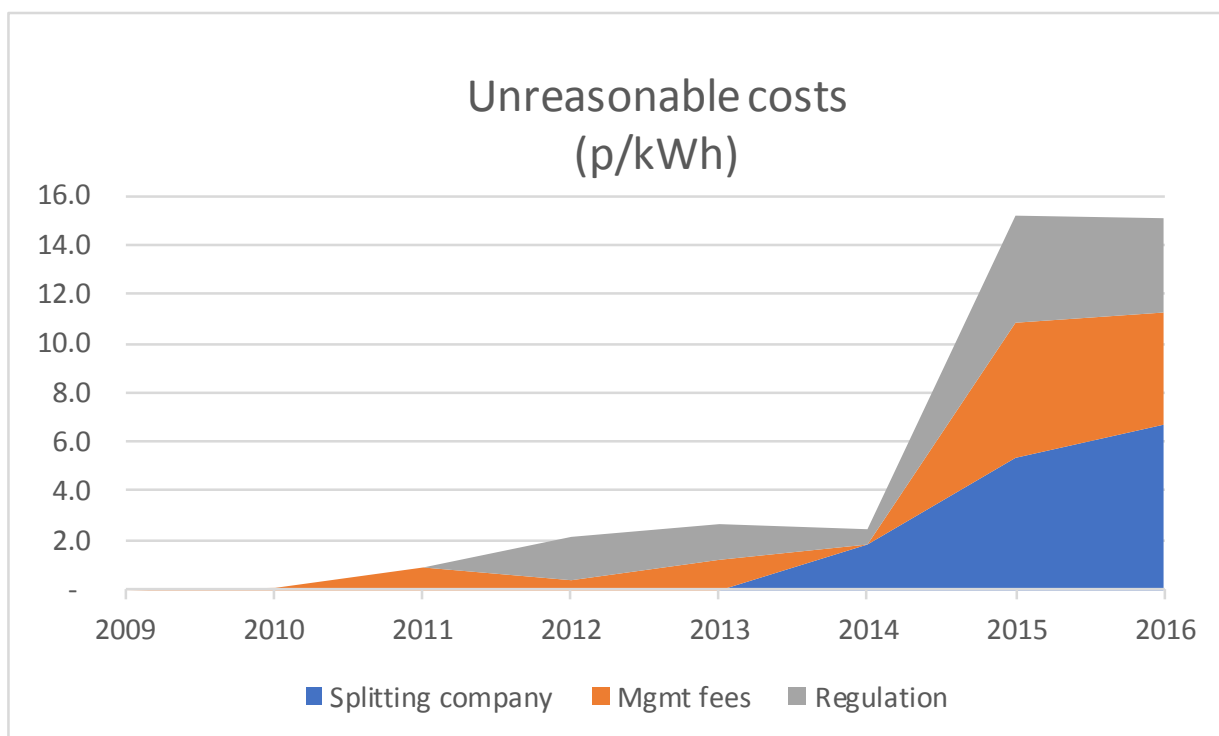
7. In December 2017, I published a Consultation paper² in which I described how I intended to determine a fair and reasonable electricity price. I found that the price charged by SEL, 66 p/kWh, was not fair and reasonable. I subsequently issued a Price Control Order in which I set a price of 52 p/kWh. Moreover, I also considered that, at 66 p/kWh, the wealthier residents of Sark might choose to buy their own generation equipment and “self-supply”. I believed that this would cause the price to less wealthy electricity consumers to rise; a situation that I did not believe was fair or reasonable. Moreover, representations I received during the consultations from customers reassured me that, were the price of electricity to fall, there would be an increase in the use of electricity for cooking, heating, tumble drying etc, allowing SEL’s profits to recover following a price reduction.
8. I also suggested that wind and solar power could generate electricity at lower costs than SEL’s current diesel generators. I argued that an efficient and economic operator would have made the appropriate investments and shared the benefits with customers in the form of lower prices.
9. SEL’s Appeal against the decision to make a Price Control Order (PCO) did not proceed to trial as the case was settled out of Court. Thus, the economic arguments I made and conclusions I reached as set out in my Determination which preceded the PCO were never tested. I explained the reasons for agreeing to the Price Control Order being set aside in my Notice to customers of 28th November 2018. As part of the agreement to set aside the PCO, it was agreed by way of an undertaking made by SEL that it would provide (and would procure that Sark Electricity Holdings would provide) Chief Pleas with access to such of its assets as may be practical and financial information, as may reasonably be required for Chief Pleas to consider the purchase of SEL/H. The agreement referred to a Negotiation Period of 3 calendar months commencing 1st December 2018 when it was envisaged that negotiations for the purchase of SEL and SEHL by Chief Pleas might be concluded. As far as I am aware, any negotiations or discussions envisaged have not yet completed but I do not believe that affects my continuing duty to consider whether the current price of 85 p/kWh is fair and reasonable.
10. I do take into account however that the evidence I have obtained and conclusions I have reached with regard to the value of SEL and the assets that it operates might, if made public, create difficulties in the on-going negotiations between SEL and the Chief Pleas for the sale of SEL and SEHL. In addition, some of the information that I have been given in relation to SEL and those assets has been disclosed to me subject to conditions restricting its disclosure to third parties. SEL has not agreed to relax those conditions, even for the purposes of me disclosing the information (in confidence) to my professional valuer.
11. In these circumstances I have produced a Confidential Annex in which I have set out my conclusions about the value of SEL and the assets it operates for the purpose of generating and distributing electricity on Sark. I have provided a copy of that Annex in draft format solely to SEL and my final Determination will take into account any representations that SEL may wish to make on the contents of the Annex and on the Determination itself.

² Consultation on Sark’s Electricity Price Control, available at www.epc.sark.gg

Recent Developments

12. Since December 2018, I have received further information from SEL including electricity demand figures for 2017 and the latest audited accounts (2016), met the Director, David Gordon-Brown, and exchanged views on:
- the appropriate methodology to value his company in order to determine a reasonable level of profit, and
 - the Commissioner's powers under The Law to scrutinise SEL's actual costs to examine whether they are reasonable or not, in order to assess whether SEL's prices are, or are not, fair and reasonable.
13. I have instructed WSP, an experienced and internationally respected firm of consulting engineers, to assess the value of SEL's electricity system. I have also carried out further analyses of SEL's accounts for the period 2007 to 2017. As a result, I have arrived at the following preliminary conclusions:-
- Given SEL's inability to provide the acquisition costs and commissioning dates of the equipment used to provide electricity supplies, I believe that, in common with regulatory practice around the world, that the method of valuing the assets of SEL according to their replacement costs, but adjusted for their remaining lives, is appropriate.
 - The assumptions that SEL makes when setting its tariff include cost items that are unfair for customers to bear. This is because:
 - i. SEL was split into two companies in 2014 as the shareholders believed it may protect the company's value. This led to higher costs arising from the unnecessary duplication of some activities.
 - ii. The company incurred considerable legal expenses when trying to stop the introduction of The Law.
 - iii. The company's director is domiciled in Canada, leading to higher management expenses, owing to travel costs.
 - iv. The tariff includes interest payments on a shareholders' loan which SEL has not taken reasonable steps to reduce.
14. Recovery of the cost of the items listed in paragraph 13 i, ii and iii above alone added 15 p/kWh to the cost of electricity in 2016, as may be seen in the following Figure 1. These activities had no effect on the provision of the service of providing electricity to customers; indeed, they were first included in the tariff after 2010 and served to protect shareholders' interests alone. SEL could only contemplate including these costs in the tariff because it enjoyed sole supplier status. I judge that such exploitation of monopoly power is unfair to customers. I am not at liberty to publish the accounts themselves, since I signed a Non-Disclosure Agreement with SEL in November 2017, under which I may not divulge actual figures from the accounts of 2009-2015 without SEL's permission, which has not been forthcoming.

Figure 1



Source: SEL Accounts, EPC calculations

15. In the following, I explain why I believe that my methodology is appropriate for judging whether SEL’s current tariff of 85 p/kWh is fair and reasonable or not. In particular, I explain why I believe it is appropriate for me to judge whether SEL’s costs are fair and reasonable and why the reasonable level of profitability should be related to the value of SEL’s assets, taking into account their residual lives.
16. The pricing methodology considers only the equipment that SEL currently employs to generate and distribute electricity. I have not considered the costs of wind power and solar PV even though, in the 2018 Price Determination, I demonstrated that these technologies could generate electricity at lower costs than SEL’s current diesel generators. This is because in October 2018, Chief Pleas deferred a decision on a planning application for a 100 kW solar farm pending a review of Sark’s future electricity supply. Similarly, it is not clear whether Chief Pleas would grant permission for a medium sized wind turbine (a 100kW wind turbine would have the same hub-height as the existing telecommunications tower).
17. In the 2018 Price Determination, I expressed my concern about the impact of the current price of electricity on the fuel poor. The risk I predicted, of spiralling prices caused by the wealthier residents deciding to “self-supply”, has now been demonstrated. It occurred on the Hawaiian island of Molokai³, as reported in June, 2019. I intend to revise the Policy Statement on the website (www.epc.sark.gg) to take these developments into account and I published a related consultation paper on 23rd September 2019.

³ Peter Fairley, Hakai Magazine, June 2019

Setting a Fair and Reasonable Price

The Law

18. Section 13 (2), the Control of Electricity Prices (Sark) Law, 2016, instructs the Commissioner, when determining whether a price which is charged by a regulated supplier for the supply of electricity is, or is not, fair and reasonable, “..... shall take all material considerations into account, including without limitation the following matters:

- a. the cost of generating and distributing the supply of electricity, including the cost of
 - i. Acquisition and maintenance of any plant and equipment,
 - ii. Fuel and other consumables, and
 - iii. Labour

required to generate the supply.

- b. The replacement cost of any plant and equipment required to generate and distribute the supply,
- c. The quality and reliability of the supply of electricity and the economy and efficiency with which the supply of electricity is generated and distributed,
- d. The margin of profit obtained by the regulated supplier,
- e. The margin of profit obtained by such other electricity suppliers generating and distributing a supply of electricity in similar circumstances in such other islands as the Commissioner thinks fit,
- f. The entitlement of the regulated supplier to receive such reasonable return, as the Commissioner thinks fit, on the assets (including plant and equipment and working capital) operated or used by the supplier for the purpose of generating and distributing the supply, and
- g. Any representations made in response to a request given under section 14, or otherwise.”

19. If the Commissioner finds that the prices charged are not fair and reasonable, the Law allows the Commissioner to set a maximum price at which electricity is sold on the island of Sark by a regulated supplier, such as SEL. In setting the maximum price, the Commissioner must consider the matters set out in Section 13(2) listed above, consult and allow the regulated supplier to respond to any representations made.

Interpretation

20. Section 13 (2)(c) of the Law indicates that I should consider “...the economy and efficiency with which the supply of electricity is generated and distributed.” I interpret this to require me to consider the costs that a reasonably efficient and cost-conscious supplier would incur in order to provide the supply of electricity. Specifically, I am satisfied that the legal costs incurred by a company trying to stop the implementation of a Law intended to protect

customers should not be recoverable through the electricity tariff. Such costs should be borne by shareholders, if they choose to incur them.

21. It is, in my judgement, reasonable to expect cost conscious owners would vigorously explore all avenues available to minimise their cost of finance. I am not aware that SEL has taken such steps, as will be shown in paragraphs 59 and 60.
22. In judging whether a price is or is not fair and reasonable, a material consideration that must be taken into account by the Commissioner is set out in Section 13(2)(e) of the Law. That provision concerns the margins enjoyed by electricity suppliers in similar circumstances in such other islands and territories, as the Commissioner thinks fit. Many island communities are served by publicly owned enterprises and, as such, their margins are not directly comparable with SEL, which is privately owned. Other island supplies, such as those in the Caribbean and the Pacific expose investors to different currency risks, changing the return they would expect to make. Moreover, many islands are also interconnected to other electricity systems, making the identification of individual island's returns difficult to determine. Direct comparators are not straightforward. Nevertheless, like SEL, the network companies on the UK mainland are not owned by government and their prices are regulated. I have taken note of the level of return judged adequate by investors in these companies, even though they are considerably larger than SEL. I also find that the return I have allowed is consistent with those achieved by privately owned electricity companies on islands in the Pacific, despite the currency risk.
23. The Law (13(2)(f)) suggests that the reasonable profit should be related to the value of the regulated supplier's assets. This is consistent with regulatory practice around the world and is the approach I have adopted in coming to my preliminary conclusions. SEL disagrees with the definition of the asset value, as I explain below.

Methodology

24. In order to discover whether the 85 p/kWh price is, or is not, reasonable, I am following the methodology described below. There are two components to the cost of generating and distributing electricity. The fixed costs do not vary with consumption and relate to wages, services purchased, materials and returns to SEL's financiers. The other component is the variable cost, which is proportional to the amount of electricity delivered to customers. The following sets out the steps I have taken in calculating "fair and reasonable" estimates of these two components.

Fixed Costs

- Estimate the fixed costs of operating the system, i.e. wages, materials, goods and services (**FC**).
- Find the value of the electrical assets SEL employs to supply electricity (**A**).
- Multiply this value by a rate of return commensurate with the risk. This arrives at a reasonable profit level (**P = RoR*A**).
- Add the depreciation charge to pay for the use of the assets over their lives (**D**).
- Divide this total (**A*RoR + FC + D**) by the number of units expected to be sold (**Q**).
- This gives a fixed unit cost **f** (p/kWh) = **(A*RoR + FC + D)/Q**.

Variable costs

- Estimate the unit cost of generating electricity from the diesel engines **v** (p/kWh) and allow for losses in the distribution system and power station auxiliaries.

Total unit cost

- Add the variable cost **v**(p/kWh) to the fixed cost **f** (p/kWh) to give the fair and reasonable price:

$$p = f + v$$

25. The following sections describe how I have arrived at my estimates for these various items.

Fixed Costs (FC)

Fixed cash costs of operation (FC)

26. SEL's fixed cash costs of operation, excluding finance, are shown, diagrammatically, in Figure 2 below. The scale is not shown, owing to SEL's refusal to disclose the accounts for the years 2009-2015. It is clear that the costs have risen dramatically over the decade, yet the service, that of electricity production, distribution and sale, has not changed. Much of the cost increase is the result of SEL's decisions to split the company in two, the attempt to stop the introduction of "The Law" and the Director being domiciled in Canada. As mentioned in paragraph 14, these decisions caused additional costs of 15 p/kWh in 2016 when the price charged was 61p/kWh.

27. In determining the annual costs an economic and efficient company would incur operating the SEL system in 2019, I have analysed the future cost base according to Staff, Director & Management, Administration Services and Operations

Staff £210,000, based on the staffing at SEL and guided by the costs in previous years.

Director Corner's Directors Rewards survey for 2016/17 shows that a full-time Managing Director of a company with a similar turnover would receive a salary of £85,000 per annum. This may be generous for SEL's Director for three reasons; running a "sole supplier" company is less onerous than directing a company operating in a competitive market, the current Director is typically only on Sark for 60% of the year and enjoys the use of a house leased by SEL. This suggests an economic operator could reduce the Director's salary in recognition of the housing costs avoided and the time off-island. I have assumed a salary lower than the amounts attributed to the Director and the associated management expenses in the draft accounts for 2017 for Sark Electricity Holdings Limited and Sark Electricity Limited.

Operations

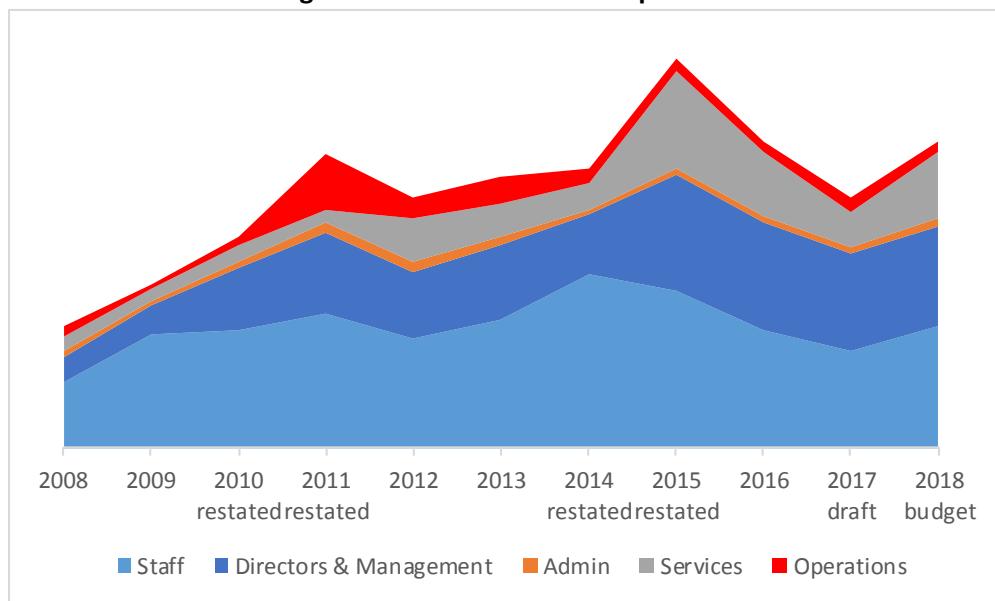
I assume a figure of £40,000 per annum for repairs, renewals, equipment costs and use of motors, which is shown as “operations”. This is higher than the average figure for SEL over the past four years but lower than the estimate made by Alderney Electricity for SEL’s system⁴. I have taken a figure mid-way between, given the need to maintain rotating machinery and to make periodic overhauls⁵. I believe that this is prudent.

Admin & Services

Administrative and services costs include stationery, audit, insurance, rent and professional fees. These would have been reasonably stable over the period, were it not for the “unreasonable costs” mentioned in the previous paragraph. I have assumed a figure of £40,000 for 2019. This is in line with the charges incurred by SEL over the past four years, excluding the “unreasonable costs”, but somewhat lower than the £52,000 suggested by Alderney Electricity owing to the lower rent and absence of rates on Sark.

28. This suggests that a reasonable figure for the total fixed cash costs of operation is around £340,000 for 2019.

Figure 2: Fixed cash costs of operation



Source: SEL accounts

⁴ Email of 12th December 2017.

⁵ Diperk Power Solutions, Perkins maintenance providers, and WSP, January, 2019

⁶ The values are omitted from this chart, owing to SEL’s refusal to permit disclosure of their financial records. There are inconsistencies in the accounts from one year to the next. In such cases, the later figures have been used – i.e. if the figures in the 2011 accounts differ from those reported in the 2010 accounts, the 2011 figures have been used.

Profit: Value of Assets (A)

29. The first step in arriving at a reasonable profit is to consider the size of the investment made in SEL. After all, it is only reasonable for investors to expect a return. I do not know the price Tim Gordon-Brown paid Mr Robson for the company in 1969 and SEL has stated it has not kept records of its investments in the company's assets. It has not responded to my request for a "vendor list" which may have enabled me to discover the prices SEL paid for its equipment. However, utilities and regulators around the world have devised a procedure for estimating the value of an existing network business when owned by shareholders, where such records do not exist or did not represent the shareholders' initial investment, as in privatisations. This is to value the company's operational assets at their replacement cost at current prices and write down, or depreciate, the assets according to their remaining operational lives. In this way, a Regulated Asset Value (RAV) may be established. This value is adjusted each year according to inflation, any capital expenditure and depreciation, as described in the December 2017 consultation document.
30. This methodology was also endorsed by SEL's economic & regulatory witness for SEL's unsuccessful injunction application last year. I have also made an allowance for working capital. I assessed this by considering the level of reserves SEL would require in order to withstand a sudden adverse fluctuation in fossil fuel prices and the malfunction of one of its generators.
31. WSP, an internationally respected consulting engineering company, was appointed by my Office earlier this year to value SEL's electrical equipment. I intend that this report will be made publicly available in due course. However, I have agreed with SEL not to release the report at present, as the company believes it could be detrimental to its position in the ongoing negotiations with Chief Pleas to purchase the company.
32. The figure WSP derived for the replacement costs was 14% higher than the replacement cost estimate provided by SEL's Independent Valuer, Mr Blowes in 2017. I did not share Mr Blowes's report with WSP so I am reassured that the two independent surveys arrived at reasonably similar figures, once inflation is taken into account. I have also been provided with SEL's own estimate of replacement costs of the assets in both November 2017 and May 2019. These estimates were both far higher than those of the two independent engineers. Moreover, SEL has also failed to explain why the 2019 replacement cost valuation was 50% higher than the one SEL itself made in 2017, especially as there was no capital expenditure declared in the draft 2017 accounts.
33. After taking depreciation into account, the value of the assets is considerably lower than the replacement value, since the assets, on average, are more than half-way through their operational lives. In common with Regulatory practice around the world and in the United Kingdom in particular, I am taking this depreciated value, or net asset figure (the Regulated Asset Value) as the figure on which it is fair and reasonable for the owners of SEL to enjoy a return.
34. SEL disagrees with my approach to valuation on two matters, even though it has been adopted internationally and on Guernsey in particular.
35. The first is straightforward. Some customers have paid in full for the electrical connection between their premises and the network. SEL believes that these cables belong to SEL and,

as such, argues it is entitled to receive a return on these assets. I disagree, as this would be counter to international practice, fairness and common sense.

36. I have, accordingly, deducted these assets' value from the Regulated Asset Value. As a result, customers should no longer have to pay SEL a return on an investment in cables which residents have financed themselves. SEL has stated that it has not kept records of the cost of making these connections and so the quantity of these "customer contributions" cannot be identified. However, connections to residences use single phase low voltage cables, whereas the distribution system consists of 3-phase cables. The WSP report assumed all single-phase cables were funded directly by customers.
37. Secondly, SEL argues that the appropriate level of return should be calculated on the replacement cost of the system, i.e. as if all the switches, transformers, generators and cables are brand new and have not deteriorated with age and/or use. I accept that investors are entitled to expect a reward for investing in a business but, for a "sole supplier", the reward should be reasonable and related to the size of the investment. When SEL installs equipment, it sells electricity and enjoys profits. These profits should be calculated after deducting an annual "depreciation charge". This charge is designed to pay back the cost of the equipment over its operating life. Therefore, the size of SEL's investment effectively reduces over the lives of the equipment. It is not reasonable for SEL to be paid a return, the size of which is always based on the level of the initial investment and rises with inflation.
38. That is why I have taken the age of the assets into account when determining the Asset Base, in common with international practice for the utilities sector and common sense.
39. Despite misgivings on the valuation methodology, SEL has provided its own assessment of the Regulated Asset Value, by making a series of estimates, given that it has stated that it keeps no such records, of the commissioning dates of the assets and whether or not customers have contributed to any connections. It provided these in a spreadsheet and an accompanying report on WSP's work. SEL's valuation was twice that of WSP's. SEL has asked me not to share the spreadsheet and report with WSP unless they sign a non-disclosure agreement (NDA) with SEL. WSP explained to me that the offered NDA would have prevented them from completing their contractually agreed duties with my Office. Furthermore, the damage provision inserted by SEL was not standard practice for NDAs in any jurisdiction. SEL also refused to sign WSP's standard NDA.
40. During my own investigation of the SEL spreadsheet I found a number of errors, both logical and arithmetical. I also found that some entries relating to customer connections were incorrect. Furthermore, the purported commissioning dates and replacement values over the period 2010 to 2016 were inconsistent with the capital expenditure declared in the audited accounts of the companies. As a consequence, I do not believe it would be prudent for me to rely on SEL's representations on valuation.

Profit: Reasonable Return (P)

41. SEL is the sole supplier of electricity on the island of Sark. As such, the investment is of low risk. Indeed, under the Price Control Order last July, which was later set aside, I ensured that its profitability would be protected, were electricity demand to fall or fuel prices rise. As such, I expect investors to be satisfied with a low rate of return. The price control regimes for the gas, water and electricity networks in the United Kingdom set rates of return on the regulated asset value in the range of 3-4% per annum in real terms. This means that, if

inflation leads to cost increases of 2% in one year, the allowed return would be 5-6% of the regulated asset value. Similarly, the returns on assets for the privately-owned electricity utilities serving the Pacific Islands⁷ were all lower than 7% in 2016, the last year of published figures.

42. An alternative approach is to consider the “cost of capital”⁸. This assumes that financiers would invest if the returns justified the risks inherent in the business. There is copious evidence that the average returns achieved by riskier businesses, whose returns are more uncertain, is higher than those engaged in more stable activities. The return (cost of capital) is directly related to this risk, or “volatility in returns”, as follows:-

Return = risk-free rate + Market Premium * β +/- company specific risk

- The **risk-free rate** is defined as the return on Government debt – such as a 10 year gilt which is currently 1.5%.
- The **Market Premium** is the excess return enjoyed by the stock market as a whole over the risk-free rate. This is currently⁹ around 5.5% per annum
- **β** represents the volatility. It reflects the relationship between a company’s return and that of the market as a whole. Riskier companies have higher β s. Companies providing returns similar to the market as a whole have β s close to 1. Utilities tend to have β s around 0.6. The level of debt a company owes will also influence the value of β .

43. I judge the **company specific risk** faced by Sark Electricity Limited to be very low and could even be negative. SEL enjoys the position of sole supplier of an essential commodity and investors may take comfort from my duty to allow the company to make reasonable profits.

44. This suggests that Sark Electricity Limited’s cost of capital should be around:

$1.5\% + (5.5\% * 0.6) + 0 = 4.8\%$ per annum in nominal terms or around 2.5% pa in real terms, taking Guernsey inflation at 2.3% per annum.

45. I consider that a reasonable return for SEL in the long term should be 5% per annum in real terms, or currently around 7.3% per annum in nominal terms. This implies that a reasonable profit for Sark Electricity Limited would be far lower than the average SEL has enjoyed over the last decade. Consequently, I believe that it is fair to SEL’s investors because: -

- the cost of capital methodology suggests only 2.5% p.a. real,
- other network utilities in the UK are set target returns of 3-4% p.a. real,
- there is no corporation tax payable on Sark and this will affect the returns investors would require, and
- tariffs may be changed at short notice if unforeseen events occur. This protection is not available to the UK’s network utilities whose revenues are set for 5-7 years.

⁷ Pacific Power Association, Benchmarking Study, 2016

⁸ See UK Regulators’ Network (UKRN) “Cost of Capital Update Report”, June 2018.

⁹ KPMG Equity Market Risk Premium Research Summary, July 2018

Depreciation (D)

46. The WSP report included an estimation of a depreciation charge, based on the replacement value of the equipment and their anticipated operating lives. The depreciation figure included in my estimation of a reasonable price will increase with inflation each year. It will also be adjusted as newer equipment is installed and old equipment decommissioned.
47. SEL's accounts include a far smaller depreciation charge, owing to its policy of not depreciating network assets in most years. This unusual accounting policy led to SEL's auditor qualifying the accounts in 2016. The actual figures are provided in the confidential annex to this report.

Unit Fixed Cost (f)

48. Adding the annual fixed cash costs to the allowed return and depreciation, I find that, were the annual electricity consumption on Sark to remain at current levels, the unit fixed costs would represent about 34 p/kWh. Were demand to rise, as may be expected were SEL to lower the price, the fixed costs would fall proportionately. If demand rose by 50%, were it to regain the growth rate of the period 1969 to 2009, the fixed unit cost would be 23 p/kWh.

Variable costs v (p/kWh)

49. Sark Electricity Limited's diesel engines burn diesel fuel oil so, in setting a fair and reasonable price for power, it is necessary to estimate the price of diesel fuel. I will assume that diesel prices, as recorded by Eurostat for the UK, will remain around the current un-taxed level of 52 pence per litre (p/l) and make an allowance for transportation to Sark of 7 p/l. SEL could not provide detailed measurements of its diesel generators' efficiencies, nor of the losses caused by running the auxiliary plant at the power station, nor of the losses on the distribution network. I have made the following assumptions:

Efficiency Fuel consumption of 235 g/kWhe, based on the specification sheets of large new Perkins diesel engines¹⁰ used for power generation but increased by 10% to account for age.

Auxiliaries Generating costs increased by 5% to allow for the power used by station auxiliaries that cool the generators. Such losses are within the range recorded in a benchmarking study of diesel-powered electricity networks in the Pacific Island States and, closer to home, in line with Alderney Electric's figure of 5%¹¹.

Losses Electrical losses on the cables, transformers and switches will be low since the Sark cables are lightly loaded. I have assumed a value of 7% in line with the average in the Caribbean¹² but slightly lower than Alderney, where they are 8%.

50. This leads to an estimate of ~19p/kWh for the current variable cost of delivering electricity to customers on Sark.

¹⁰ Perkins datasheet for 3012TAG3A

¹¹ Email to EPC from James Lancaster of Alderney Electricity, 6th December 2017.

¹² Communication from Caribbean Electric Utility Services Corporation.

Fair & Reasonable Price (p=f+v)

51. The above analysis suggests that a fair and reasonable price for electricity distributed over Sark Electricity Limited's network is currently around 53 p/kWh. In recognition that the actual cost will be influenced by the outturn level of demand and actual fuel prices, an adjustment may be made to account for any under or over-recovery by SEL in subsequent years. This mechanism was described in the Price Control Order of July 2018.

Discussion

52. The current price of electricity on Sark is 85 p/kWh, yet the above calculations demonstrate that a fair and reasonable price would be around 53 p/kWh, based on SEL's equipment being operated in an efficient and economical manner. A major part of the discrepancy arises from the unreasonable costs that SEL recovers through electricity prices.

53. In the past, SEL has enjoyed returns far in excess of the level I consider to be reasonable. Table 1 below shows the returns on capital (operating profit/regulated asset value) since 2009. The operating profit is taken from SEL's accounts and the Asset Base for the earlier years has been calculated from the WSP figure for March 2019 and adjusted to take account of inflation, capital expenditure and depreciation. The loss in 2015 is a consequence of the higher legal expenses whilst the Law was progressing through Chief Pleas and the Courts and larger Directors & Management expenses.

Table 1: SEL returns (Operating Profit/Regulated Asset Value)

	2009	2010 restated	2011 restated	2012	2013	2014 restated	2015 restated	2016	2017 draft	2018 budget
Op profit/RAV	36%	40%	39%	27%	20%	30%	-5%	10%	19%	9%

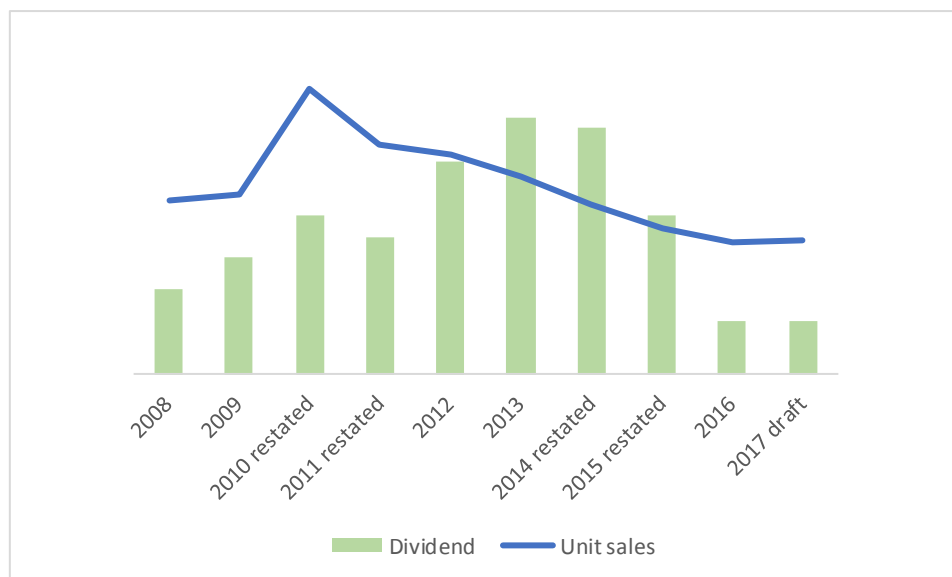
54. These returns, on average, are very high. However, some adjustments are in order on account of SEL's practice of not depreciating its network assets in some years. As a result, its profits have been mostly over-stated in the accounts and this may have encouraged the company to distribute larger dividends to shareholders than may have been prudent. Table 2 shows these returns on the assumption that an appropriate depreciation methodology had been adopted. Despite these downward adjustments, SEL's returns have been considerably in excess of the 7.3% nominal return I judge to be reasonable, apart from the loss in 2015 and the return that was forecast for 2018. SEL have not provided audited accounts for 2017 and 2018, nor the actual demand for 2018.

Table 2: SEL returns (adjusted for appropriate depreciation of network assets)

	2009	2010 restated	2011 restated	2012	2013	2014 restated	2015 restated	2016	2017 draft	2018 budget
Adjusted Op profit/RAV	35%	38%	36%	24%	16%	29%	-9%	6%	15%	4%

55. Figure 3 shows the movements in dividends paid to its shareholders over the last ten years, together with the sales of electricity. The scales are not shown, owing to SEL's demand that they are not revealed. Despite the demand for electricity falling precipitously following the closure of some hotels, dividends grew dramatically after 2011. It is as if SEL was insulated from the economy of Sark.

Figure 3: SEL Dividends & Electricity Sales



Sources: SEL Accounts & Newsletters. Axes are omitted as SEL will not allow publication of financial results or unit sales.

56. Were SEL constrained to a “fair and reasonable” price, the sustainable dividend paying capability of the company would be around the level paid before 2010.
57. SEL believes that setting its operating profits in this way would not be fair to its shareholders. SEL argues:-
- its dividends should be set in comparison with the dividend yield enjoyed by energy companies, such as SSE and Centrica, say 4%.
 - in the absence of a market price for SEL’s shares, the market value should be taken as the replacement value of its system, as new.
 - it would not be able to pay interest on its shareholder loan if profits were so low. It claims it would not be a “going concern”.
58. I have not been provided with any justification for SEL’s valuation methodology and am not aware of any utility company in the world being valued in this way, either in a commercial transaction or as a regulatory process. However, SEL insists that it should not depreciate the distribution assets, and therefore values the distribution assets “as new”.
59. There are a number of further observations on SEL’s arguments. Dividends are paid out of operating profits but after interest payments have been made. I am not convinced that it is fair for customers to pay for higher interest charges than necessary. The shareholder loan interest rate, currently 8%, is higher than I believe could be available in the loan market. The

company has not sought to replace this debt with commercial loans, arguing that they are difficult to obtain on Sark, owing to the lack of creditor protection. SEL claims it was offered loans at an interest rate of 16% as they were “unsecured” on account of wayleaves¹³ being unobtainable on Sark. When I found evidence that Mr Robson, the previous owner of the electricity system on Sark, held wayleaves, SEL explained that it really required Statutory Wayleaves, otherwise individual landowners could hold the company, and hence customers, to ransom.

60. SEL believes that the cost of wayleaves is likely to outweigh the benefit of lowering the interest rate from the shareholder’s loan rate to something in the region of 6%. I do not accept this argument. It seems to me that SEL has not explored the opportunity to lower its financing costs. Wayleaves for underground cables are cheaper than those for overhead lines as, being buried, they do not detract from the landowners’ enjoyment of the local scenery. For SEL’s system, the charge, based on rates in the UK, would amount to around £1,600 per annum¹⁴, equivalent to ~0.1 p/kWh. Financiers¹⁵ in Guernsey advised that investors would be interested in purchasing a “Sark Bond” with an interest of 6%, assuming that the electricity company held wayleaves covering its assets located on others’ property. A lower interest rate, 6% rather than 8%, would reduce costs by just under 2 p/kWh.
61. I have not been provided with a signed and dated agreement evidencing the terms and conditions of the shareholders’ loan, though I have seen an unsigned Loan Agreement between The Sark Electricity Company Limited (TSECL) and a Guernsey Trust dated 2013. Mr David Gordon-Brown stated in Court in August 2018 that the loan was created in 2010, after the death of Mr Timothy Gordon-Brown.
62. The beneficiaries of the estate claimed that the company owed a considerable sum to Mr Timothy Gordon-Brown on his death. I have seen no documentary evidence to support this claim but have seen a spreadsheet containing figures purporting to show cash payments made by Mr Timothy Gordon-Brown to TSECL. The payments, made over the period from 1971 to 2003, amounted to under £0.5 million. The beneficiaries of the estate decided to increase this sum by inflation to arrive at a figure of £1,268,000.66 and that this should be the principal value of the loan.
63. Since 2010, the shareholders have received over £100,000 as interest payments annually as a result of this arrangement. Following the creation of the loan, the accounts for the earlier years, back to 2006 at least, were re-written and the back-dated interest, amounting to over £400,000 was distributed to the shareholders. SEL has refused to provide me with bank statements, or any other evidence, to show that, as well as providing cash to TSECL, Mr Timothy Gordon-Brown did not receive repayments from the company. In any case, SEL may well be able to service the loan, were it to charge 53 p/kWh and operate in an efficient and economical manner.

¹³ A “wayleave” provides the right to place equipment on someone else’s land.

¹⁴ Wayleave rates for underground cables are currently £2.10 per annum for 50m, or part thereof. SSEN, 2018.

¹⁵ Advice I received from Ravenscroft Investments; January, 2018. This has recently been confirmed in a discussion with a commercial bank on Guernsey. I also note that the Guernsey Press reported on 7th May, 2019 that Guernsey Electricity has raised a 25 year bond with an indicative interest rate of 3.625% without a Government guarantee.

Adjustments

64. The level of demand and movements in fuel prices are the major uncertainties influencing this estimate of a fair and reasonable price. As mentioned in paragraphs 41 and 51 above, the Price Control Order of July, 2018 described how SEL's profits could be protected, were fuel prices to rise and/or demand to fall. If a Price Control Order were made, this mechanism should give comfort to investors in SEL. Indeed, there could be a case for arguing that the "reasonable return" of 5% real per annum is too generous.
65. As part of the Settlement agreement I made with SEL in November 2018, I accepted that reasonable legal costs incurred by the company during the process of responding to Determinations and Price Control Orders could be recovered from customers. This is common practice for regulated companies. However, SEL has announced its intention of recovering all its legal costs from customers through the electricity tariff. As I have explained in the Consultation on the Policy statement of 23rd September 2019, I do not regard it fair for customers to bear legal costs incurred trying to hinder my investigations, nor those associated with the sale of the company to Chief Pleas. SEL has not agreed to provide descriptions of the various bills to either me or independent legal cost draught persons. When I have this information, which will allow me to judge the level of "reasonable costs", my view of the maximum price may be raised until such time as SEL's reasonable legal bills are recovered.

Conclusion

66. I have demonstrated that, at current diesel fuel prices and demand, an efficient and economical owner of SEL's existing assets would enjoy a reasonable return, were it to charge around 53 p/kWh for electricity. SEL appears to have set electricity prices unreasonably high because it has an unrealistic view of the level of returns to which it believes it is entitled and because it assumes that *all* costs it incurs operating the business, whether they are reasonable or not, may be passed onto customers. I have yet to come to a conclusion on the level of legal costs that SEL has incurred that it is reasonable to expect customers to bear through the tariff.

Next Steps

67. I am pleased to accept representations from residents and other interested parties by 22nd October 2019. These representations will be shared with SEL. Respondents should indicate if they do not wish their communications to be published on the EPC web-site (www.epc.sark.gg). SEL will be given two weeks to respond to any representations I receive, so I should be grateful for prompt responses. I would be particularly interested to hear whether:-
- residents with sections of the distribution system running through their property would be willing to sell wayleaves to the company;
 - the current price is limiting residents' use of electricity;
 - the installation of wind turbines of a hub height similar to the telecommunications tower is acceptable;

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- residents paid for the connection to the electricity system directly, or through their builder;
- the level of return I am considering, 5% per annum plus inflation, is fair; and
- there are any other matters relating to electricity pricing respondents would like to raise.

68. After I have received these submissions, I will decide whether I will make a formal Determination and then move to a draft Price Control Order. I hope this will not be necessary.

Anthony White

Commissioner

October 1st 2019