

Publicly Owned Energy Company: Strategic Outline Case (SOC)

Scottish Government

29 March 2018



Ernst & Young LLP
G1
5 George Square
Glasgow
G2 1DY

Tel: + 44 141 226 9000
Fax: + 44 141 226 9003
ey.com

Reliance Restricted

29 March 2018

Low Carbon and Consumers Division
The Scottish Government
Low Carbon Infrastructure Unit
5 Atlantic Quay
Glasgow
G2 8LU

Dear Sirs

Strategic Outline Case in support of the development of a publicly owned energy company

In accordance with your instructions, we have performed the work set out in the scope of our ConsultancyONE contract dated 20 October 2017 (the “Engagement Agreement”) in connection with the preparation of a Strategic Outline Case for the development of a publicly owned energy company (the “Project”).

Purpose of our report and restrictions on its use

This report was prepared on the specific instructions of the Scottish Government solely for the purpose of the Project and should not be used or relied upon for any other purpose.

This report and its contents may not be quoted, referred to or shown to any other parties except as provided in the Engagement Agreement.

We accept no responsibility or liability to any person other than to the Scottish Government and accordingly if such other persons choose to rely upon any of the contents of this report they do so at their own risk.

Nature and scope of the services

The nature and scope of the services, including the basis and limitations, are detailed in the Engagement Agreement. We were engaged to prepare the Strategic Outline Case in line with the HM Treasury Green Book guidance. Our scope of works does not include a review of regulatory or legal matters. For more information on our scope please see section 1.3 of this report.

This report is based upon the scope of services that was determined by the Scottish Government and we did not have the specific interest of any particular third party in contemplation when we carried out our work.

Yours faithfully, Ernst & Young LLP

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Abbreviations

AME	Annual Managed Expenditure	LA	Local Authority
BEIS	Department for Business, Energy & Industrial Strategy	LEC	Levy Exemption Certificate
CBG	Consolidated Budgeting Guidance	MGDD	Manual of Government Deficit and Debt
CBS	Community Benefits Society	MW	Megawatt
CCL	Climate Change Levy	NDPB	Non-Departmental Public Body
CfD	Contract for Difference	NFP	Not-for-Profit
C-DEL	Capital Departmental Expenditure Limit	OBC	Outline Business Case
CHP	Combined Heat and Power	Ofgem	Office of Gas and Electricity Markets
CIC	Community Interest Company	OJEU	Official Journal of the European Union
CMA	Competition and Markets Authority	ONS	Office of National Statistics
CRM	Customer Relationship Management	OSCR	Office of the Scottish Charity Regulator
EBIT	Earnings Before Interest and Tax	Our Power	Our Power Energy Supply Limited
ECA	Enhanced Capital Allowance	PPA	Power Purchase Agreement
Energy	Gas and Electricity	R-DEL	Revenue Departmental Expenditure Limit
Energy Co.	Publicly Owned Energy Company	ROC	Renewable Obligation Certificates
ESA	European System of Accounts	SBP	System Buy Price
ESCO	Energy Services Company	SEAP	Sustainable Energy Action Plan
ETS	Emission Trading Scheme	SG	Scottish Government
EU	European Union	SM	Smart Meter
EY	Ernst and Young LLP	SOC	Strategic Outline Case

Abbreviations

FBC	Full Business Case	SPE	Special Purpose Entity
FIT	Feed in Tariff	SSE	Scottish and Southern Electricity
Gas	Natural Gas	SSP	System Sell Price
GB	Great Britain	SVT	Standard Variable Tariff
GW	Gigawatt	TPLS	Third Party Licenced Supplier
HMRC	Her Majesty's Revenue & Customs	UK	United Kingdom
HR	Human Resources	UKCS	United Kingdom Continental Shelf
JV	Joint Venture	VAT	Value Added Tax

Executive summary

This Strategic Outline Case (SOC) presents the case for change for the Scottish Government (SG) to establish a publicly owned energy company (Energy Co.). The intention to set up an Energy Co. by the end of this Parliament (March 2021) was announced by the First Minister on 10 October 2017.

EY has been engaged by SG to prepare this SOC to develop the proposals set out by the First Minister.

In line with HM Treasury business case model and guidelines¹, this SOC reviews the five cases as follows:

- ▶ Strategic Case
- ▶ Socio-economic Case
- ▶ Commercial Case
- ▶ Financial Case
- ▶ Management Case.

Each case is summarised below.

Strategic Case

Significant challenges exist in the Scottish energy market, including high electricity prices, a lack of consumer switching and, critically, the existence of significant levels of fuel poverty in Scotland. The Strategic Case demonstrates that the creation of the Energy Co. has the potential to successfully address some of the problems in Scotland's energy market.

The case explores if an Energy Co. is capable of reducing energy costs. The analysis indicates that the pre-tax profit margins made in this market, on average, are limited. This may present challenges to the Energy Co. in a highly complex and competitive market. Nevertheless, price competitiveness has been shown to be the single most common factor energy suppliers promote to try and attract customers. Therefore, if the Energy Co. is able to provide competitive pricing, it would be well positioned to develop a sufficient customer base.

Secondly, it discusses how an Energy Co. can encourage energy efficiency more successfully than existing suppliers. Promoting energy efficiency as a way of reducing energy consumption, as opposed to reducing energy costs, is another means of tackling fuel poverty. By developing a trusted brand and promoting its socially minded objectives, the Energy Co. would be able to focus engagement with customers and encourage energy efficiency measures.

¹ <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

Thirdly, we discuss if an Energy Co. can encourage customers to switch suppliers. An Energy Co., being a public sector initiative, may be able to develop significant and positive brand awareness. It may also seek to communicate with disengaged customers that would otherwise have remained on an uncompetitive tariff.

In addition to tackling fuel poverty, the Strategic Case identifies that an Energy Co. can support economic development and growth. As a market innovation, the Energy Co. has the potential to support a number of Scotland’s Economic Strategy pillars, including Investment, Innovation and Inclusive Growth. Specifically, the Energy Co. has the potential to support economic growth by supporting local energy generation and efficiency, delivering lower cost of capital for supplying energy to Scottish customers and encouraging energy efficiency more successfully than existing suppliers.

Socio-economic Case

The Socio-economic Case introduces and provides initial considerations for the appraisal of the proposed long list of delivery options for the Energy Co. Using an agreed appraisal methodology and criteria, EY and SG concluded that the following delivery options should be short-listed for further consideration.

Table 1 - short list of delivery options

	Delivery Option	Description
1	Do nothing	SG does not pursue the creation of the Energy Co. This option forms the counterfactual for the SOC.
2	Existing socially minded supplier	The Energy Co. would utilise an existing socially minded supplier as the future delivery structure. Existing ownership and governance arrangements may need to be reviewed to ensure appropriate SG control.
3	Government owned company	Creation of a new limited company (by shares or guarantee). It would be 100% owned by SG and governed by the Companies Act. An example of a relevant entity would be Skills Development Scotland. SG would appoint the Chairman and Board of Directors to ensure its policy objectives and interests are reflected in the Company Strategy and Business Plans. The Board would oversee an Executive Management Team.
4	Federal model	Creation of a SG incorporated “Topco” company with joint venture subsidiaries operated by individual local authorities (LAs). The subsidiaries will White Label the supply of electricity and gas from the Energy Co. and bring a locally branded supply to the market. The products will be consistent across the LAs. It would be up to individual LAs whether they participate in the vehicle.

Delivery Option	Description
	The top company would be controlled by SG (through Board representation as per a Government Company). Governance arrangements would need to be agreed for the regional subsidiaries, including delegated remit. Funding would be through SG (as shareholder) with the potential for third party funding (including through trading profits).

Source: EY

The appraisal process has been developed on the assumption that the Energy Co. is established to address a specific set of objectives, namely to deliver competitively priced energy which will help to alleviate fuel poverty. As a result, the appraisal criteria and shortlisting process has been carried out with this fundamental principle at its core.

If this underlying principle were to evolve, the appraisal methodology can be updated. For example, SG may seek to refine proposals for the Energy Co. to adopt broader objectives. For example, the Energy Co. focussing on the dual impact of tackling fuel poverty and driving economic development, or being implemented by a wider group of public sector stakeholders, including LAs.

The short list of delivery options should be formally evaluated during the preparation of an Outline Business Case (OBC). This will allow SG to select a preferred delivery structure for the Energy Co.

Commercial Case

The Commercial Case evaluates potential operating models that would allow the Energy Co. to achieve its objectives and operate in the highly commercial and competitive energy retail market. Two operating models have been explored:

Table 2 - Operating models

Operating model	Description
White Label model	Under a White Label model, the Energy Co. would procure an existing licenced supplier to provide the Energy Co. with its own nationally branded and unique products. It would not apply for, or hold, its own supply licence.
Full Capability and a 'Licence Lite' capability	There are two sub-options under this operating model: Full Capability model – The Energy Co., would become a licenced gas and electricity supplier and would be responsible for complying with the associated industry

regulatory requirements

'Licence Lite'– is an option that helps new suppliers enter the electricity supply market. It does not apply to gas supply. It allows the new supplier to partner with an existing supplier, with the partner supplier taking responsibility for providing the capability required to comply with some of the more costly and technically challenging requirements of a supply licence.

Source: EY

A third option, a SG wholesale procurement framework model was discounted due to the level of complexity, risk of procurement challenge and the potential impact of prices for existing public sector customers.

The Commercial Case also looks at the use of an existing supplier and Federal structure and discusses additional areas such as the optimal scale and size of the Energy Co., potential future service offerings by the Energy Co. and considerations for digital service offerings.

Financial Case

The Financial Case explores the Energy Co.'s fundamental financial principles and introduces the likely magnitude of the potential set up and operating costs. It does not, however, contain fully costed operating models for the Energy Co. This is appropriate given the project's early stage of development, the complexity of the proposal and the need to develop a preferred underlying operating and commercial model.

Based on our preliminary analysis, the set up costs for the Energy Co. could be in the range of £0.5m - £3.5m. Actual costs will depend on the choice of operating model, the growth ambitions for the Energy Co. and several other key operational considerations that have yet to be determined.

The year one operating costs are likely to be substantial, especially if the Energy Co. is operated as a Full Capability supplier. Based on comparable precedent companies the annual operating cost could be in the region of £2.8m - £9.0m. Under the White Label model the operating costs would be lower given several core functions would be provided by the partner company. The peak funding requirement could, however, be higher than this given the Energy Co. may trade at a deficit for a considerable period.

The total funding requirement would be significantly lower for a White Label model. However, due to the heavy reliance on the White Label partner, the Energy Co. would have less flexibility and control. In addition, given the partnering arrangement, Energy Co. revenues would be lower than under the Full Capability model. As such a detailed cost benefit analysis will need to be performed at the OBC stage.

Scottish Government will need to ensure that its investment in and ongoing support of the Energy Co. are compliant with State Aid rules.

An in-depth review of the Energy Co.’s tax position will be undertaken alongside further work on the delivery structure and operating model at the OBC stage.

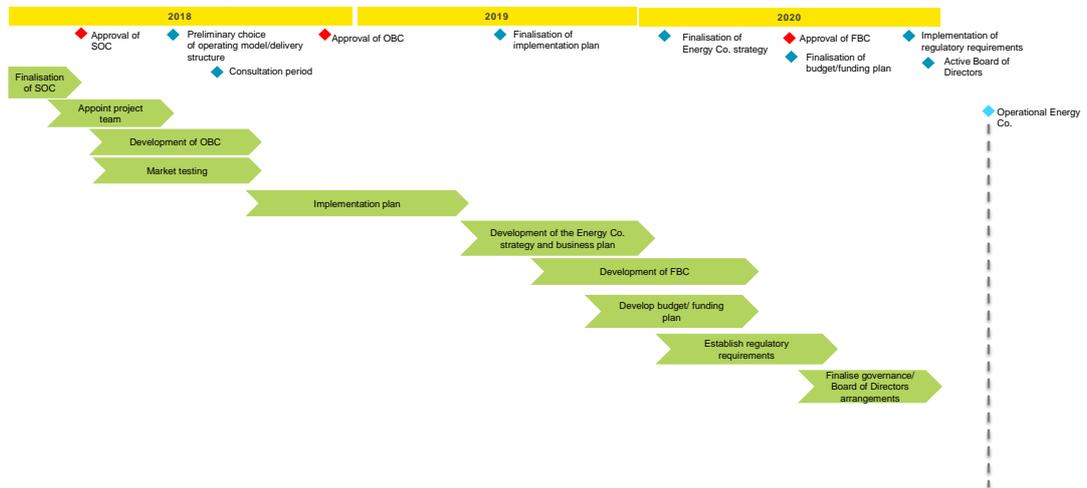
Management Case

The Management Case outlines the initial steps to develop and implement the programme for the Energy Co.

Programme and project management plans

The project plan has been established, highlighting timescales for work streams and approvals to allow an operational Energy Co. by March 2021.

Table 3 - Energy Co. project timeline



Source: EY

Governance structure

The governance structure will be developed as part of the OBC. The high level project plan above indicates that the executive team will be appointed in late 2020. In order to develop the project effectively SG will need to bring one or more senior energy sector experts with relevant experience onto the Project Board, ideally experienced from a private sector energy supply company perspective and a SG project governance perspective.

Risk register

A high level risk register has been established for the SOC. The risks have been qualitatively assessed and as the programme progresses risks will be reviewed, updated and quantified where possible. The risk register articulates the high level strategic, commercial and financial risks that currently exist including securing appropriate financial support, establishing a successful commercial vehicle and complying with the appropriate legal and State Aid requirements.

Next steps

The Management Case has considered the initial steps required to progress the programme for the Energy Co. The key next steps which should be undertaken within the OBC are detailed below:

- ▶ Confirm the preferred delivery structure and operating model for the Energy Co and obtain legal sign off (including the approach to implement the delivery structure such as procurement strategy and necessary licences)
- ▶ Develop a financial base case based on the chosen operating model and delivery structure
- ▶ Develop a robust and comprehensive project plan, confirming dialogue and decision points with SG.

Conclusion

The SOC concludes that it is possible to establish an Energy Co. to achieve the stated objective of delivering competitively priced energy to help alleviate fuel poverty in Scotland. We also, however, recognise the challenges of doing this in a highly innovative, competitive and evolving energy retail market. State Aid restrictions prevent the Energy Co. from operating on a subsidised basis, therefore a commercial model is required for this to be successful. As a result, the over-riding strategic question for SG is how to make the Energy Co. cost competitive, in a low margin market.

This challenge requires further detailed scrutiny of the available operating models, including the most cost effective way to utilise market leading technology and capability in a public sector context.

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1. Introduction

1.1 EY scope of work

This Strategic Outline Case (SOC) presents the case for change for the Scottish Government (SG) to establish a publicly owned energy company (Energy Co.). Its primary aim will be to provide competitively priced energy and help alleviate fuel poverty.

The intention to set up an Energy Co. by the end of this Parliament (March, 2021) was announced by the First Minister Nicola Sturgeon on 10 October 2017.

EY were engaged to prepare the SOC in line with the HM Treasury Green Book guidance. Our scope of works does not include a review of the regulatory or legal matters in respect of establishing Energy Co.

1.2 Approach to applying the five case model

HM Treasury Green Book guidance requires business cases to be developed in three stages:

- ▶ Strategic Outline Case (SOC) – explore initial options
- ▶ Outline Business Case (OBC) – evaluate list of options
- ▶ Full Business Case (FBC) – develop the preferred option.

The key focus of this document is to evidence the case for change and to provide an analysis of the options through which the Energy Co. can be established, subject to further development at the OBC.

1.3 Structure of this Strategic Outline Case

The SOC is structured as follows:

- ▶ Strategic Case – identifies the case for change. The Strategic Case highlights the need for additional intervention based on the high level of fuel poverty in Scotland, and the limited success of initiatives thus far to alleviate this
- ▶ Socio-economic Case – identifies a long list of delivery vehicles and qualitatively identifies a short list of suitable options for establishing the Energy Co. Short listed options can then be taken forward to the OBC for further analysis and evaluation
- ▶ Commercial Case – examines the potential operating models that would allow the Energy Co. to achieve its objectives and operate in the highly commercial and competitive energy retail market. Options have been appraised and supported by recommendations to take forward to the OBC for further analysis

- ▶ Financial Case – The Financial Case looks at the likely funding requirements for the Energy Co. with respect to the operating models being considered. These have not been quantified for the SOC; instead existing benchmarks have been evaluated, subject to further development at the OBC stage
- ▶ Management Case – The Management Case examines whether the project is capable of being delivered and summarises the likely implementation plans, governance structure and provides a review of risks associated with the project.

2. Strategic Case

2.1 Introduction

There are approximately 2 million domestic gas customers and 2.4 million domestic electricity customers in Scotland.² However, the energy market does not always meet the needs of these customers. In particular:

- ▶ Energy prices for consumers remain high³
- ▶ Many consumers do not switch to better deals, even though these are available
- ▶ Fuel poverty remains a key issue in Scotland.

Although many of the powers relating to energy supply are reserved to Westminster, SG has set out its own vision for the energy sector in Scotland. In December 2017, SG published the Scottish Energy Strategy: The future of energy in Scotland (“the strategy”). The objectives of the strategy are set out below.

Table 4 - SG 2050 vision for energy in Scotland

Theme	Description and Targets
A whole system view	<ul style="list-style-type: none"> ▶ The Scottish Energy Strategy sets out a whole-system view of energy policy, examining where Scotland’s Energy comes from and how it is used – for electricity, heat and transport. This integrated approach recognises the interactions and effects that the elements of the energy system have on each other ▶ A new 2030 ‘all-energy’ target for the equivalent of 50% of Scotland’s heat, transport and electricity consumption to be supplied from renewable sources, captures the ambition in this system-wide approach.
An inclusive energy transition	<ul style="list-style-type: none"> ▶ Scotland’s overall approach to energy is determined by the need to further decarbonise the whole energy system, in line with emissions reduction targets ▶ The current Climate Change (Scotland) Act 2009 requires an 80% reduction in harmful greenhouse gas emissions across our entire economy and society between 1990 and 2050.
A smarter model for	<ul style="list-style-type: none"> ▶ In recent years, Scotland has steadily moved away from traditional models of centralised energy provision

² A significant proportion of households in Scotland are not connected to the gas distribution network and are therefore required to use electricity or alternative fuels for cooking and heating.

³ Ofgem, 2017, *State of the energy market*

local energy provision

and passive consumption, and new innovative local energy systems have been developed

- ▶ SG has committed long-term funding to develop local energy system through initiatives such as the Low Carbon Infrastructure Transition Programme (LCITP), the Home Energy Efficiency Programme, and the Community and Renewables Energy Scheme (CARES).

Source: Scottish Government (2017), Scottish Energy Strategy: The future of energy in Scotland

SG has also designated energy efficiency as a national infrastructure investment priority and is developing Scotland Energy Efficiency Programme (SEEP) to deliver this. This will build on the range of existing interventions, including:

- ▶ Home Energy Efficiency Programmes for Scotland (HEEPS)⁴: This programme includes funding for area-based schemes, where the SG provides funding to LAs to develop and deliver fuel poverty programmes (mainly solid wall insulation) in areas with high levels of fuel poverty and also Warmer Homes Scotland, the national fuel poverty programme delivered by a managing agent
- ▶ Home Energy Scotland Loan⁵: The SG makes available funding of up to £32,500 per home to owner occupiers and eligible registered private sector landlords in Scotland to improve the energy efficiency of the dwelling
- ▶ Home Energy Scotland. The SG funds the Energy Saving Trust to provide the independent, impartial advice and information service about energy efficiency and reducing fuel bills
- ▶ The Energy Efficiency Standard for Social Housing (ESSH) sets out minimum energy efficiency ratings for homes in the social rented sector
- ▶ Supplier switching: The SG has part-funded Citrus Energy, a social enterprise company that provides consumers with advice on energy bills, including a switching service.

These measures supplement the principal UK Government measures for addressing fuel poverty, including:

- ▶ Warm Home Discount: This is a supplier obligation to provide a discount of £140 on an eligible household's electricity or, where relevant, gas bill during the winter period

⁴ <https://beta.gov.scot/policies/home-energy-and-fuel-poverty/energy-saving-home-improvements/>

⁵ <http://www.energysavingtrust.org.uk/scotland/grants-loans/home-energy-scotland-loan>

- ▶ Winter fuel payment: People born on or before 5 August 1953 are eligible for a payment of between £100 and £300, depending on household circumstance, to help pay for increased heating bills during the winter period
- ▶ Energy Company Obligation: Also a supplier obligation where obligated energy companies are required to meet certain carbon emission reduction and fuel bill savings targets by installing energy efficiency measures in eligible households.

To enhance the existing policy objectives of addressing fuel poverty in Scotland, SG has decided to establish an Energy Co.

To inform these decisions, this Strategic Case sets out:

- ▶ The rationale for market intervention, including addressing levels of fuel poverty
- ▶ The opportunities for the Energy Co. to make a positive difference in outcomes for consumers, including reducing fuel bills.

2.2 The problems in Scotland's energy market

Market failures in the UK energy market have been the subject of considerable debate in recent years and are well documented. There has been numerous inquiries and probes into the energy market over the past decade, but the most recent significant investigation was by the Competition and Market Authority (CMA) between 2014 and 2016⁶. The CMA found evidence of adverse effects on competition, which fell into three main areas:

- ▶ Lack of customer engagement: A large segment of energy consumers are disengaged with the market, there are poor levels of trust in suppliers and lack of confidence among consumers that switching provider will provide them with a better deal. This lack of engagement leads to a two-tier energy market, in which suppliers are able to exploit disengaged customers by charging high prices or providing poor levels of service
- ▶ Barriers to entry: The CMA identified areas where the regulations and technical constraints on generators and suppliers constituted an impediment to competition in the wholesale and retail energy markets
- ▶ Broader regulatory framework: The system for regulating the energy sector hinders the timely development of policies and regulations to benefit customers.⁷

The CMA's investigation has led to over 30 measures being proposed and implemented to remedy issues identified during the course of the

⁶ CMA (2016), Energy Market Investigation <https://www.gov.uk/cma-cases/energy-market-investigation>

⁷ The evolving regulatory market will need to be reviewed during the OBC and any developments that could impact the deliverability of Energy Co will be considered.

investigation. These measures include the introduction of a retail energy price cap for customers on prepayment meters and ensuring suppliers make all their single rate tariffs available to customers on restricted meters.

Ofgem identified in its 2017 State of the Market report, that despite increasing customer engagement in recent years, a large proportion of consumers remain unengaged, with 35% of consumers surveyed having never switched supplier.⁸ The main reasons consumers give for not switching are “satisfaction with existing arrangements, switching being a hassle, and believing that they are not likely to make significant savings by switching.”

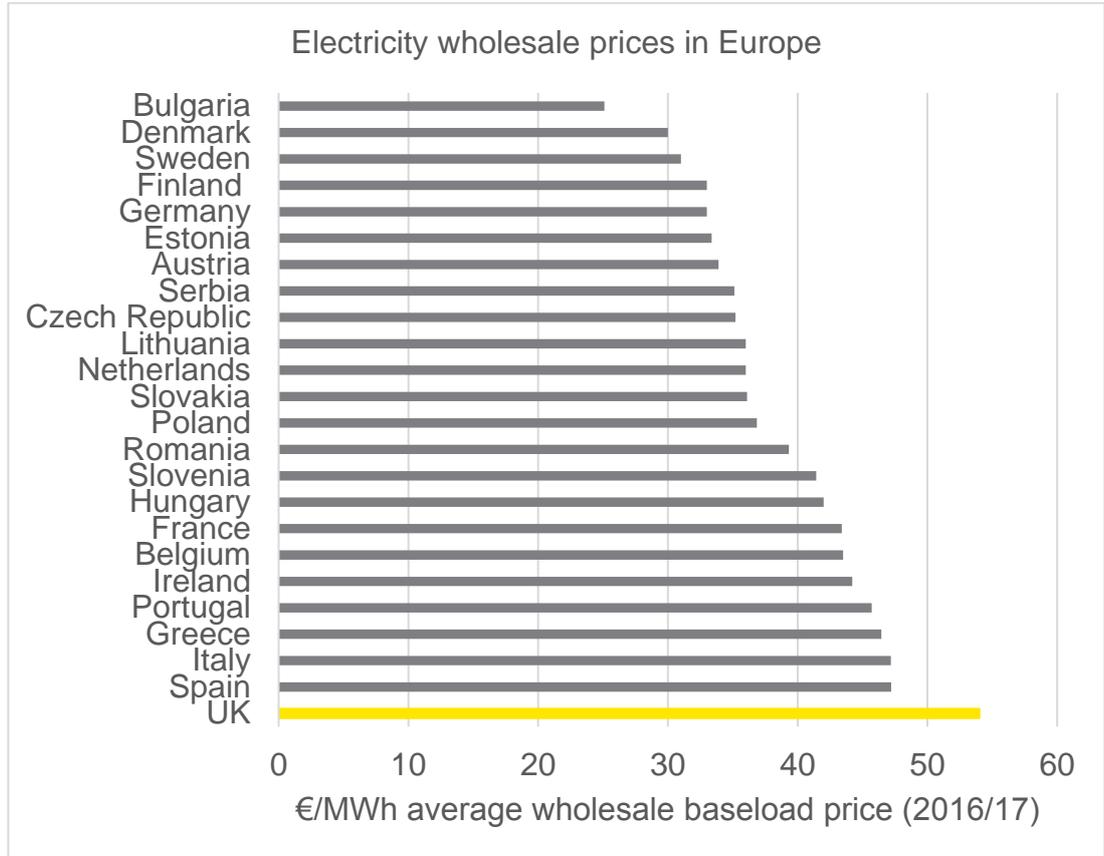
More recently the UK Government has raised concerns regarding the overall cost of energy and commissioned Professor Dieter Helm to conduct a review of the cost of energy with a view to making recommendations to reduce the cost of energy for both domestic and non-domestic customers.⁹ Professor Helm has recently published his report, the key message is that energy prices are too high. The UK Government is now consulting on his recommendations.

While gas prices for domestic customers in the UK were lower than the average for European Union (EU) states in 2015, electricity prices were among the highest in Europe for domestic customers. Ofgem identified in its 2017 State of the Market report that the UK has the highest electricity wholesale price in Europe, principally driven by the higher level of carbon tax in the UK.

⁸ <https://www.ofgem.gov.uk/publications-and-updates/state-energy-market-2017>

⁹ Helm (2017), Cost of Energy: Independent Review
<https://www.gov.uk/government/publications/cost-of-energy-independent-review>

Figure 1 – Electricity whole sale prices in Europe



Source: Ofgem

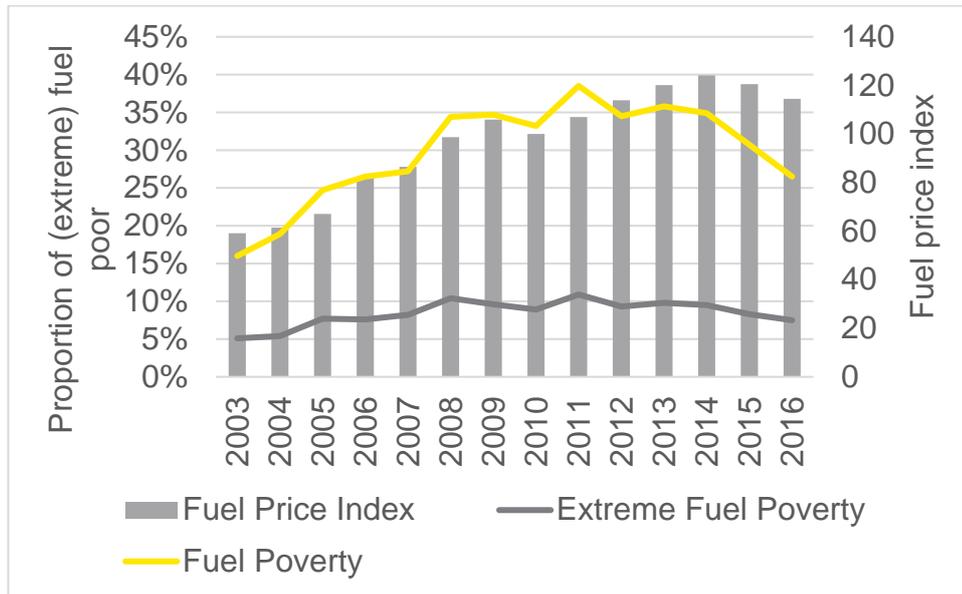
Moreover whilst electricity prices are higher than the EU average, the two-tier nature of the UK energy market (with some customers switching regularly and others not switching at all) further exacerbates issues of energy affordability and fuel poverty. These problems are discussed in more detail below.

2.2.1 Fuel poverty in Scotland

In Scotland, domestic energy consumers are described as being fuel poor if they are required to spend more than 10% of their income on all household fuel use in order to maintain a satisfactory lifestyle, and described as extremely fuel poor if this is over 20%. A SG consultation on a new fuel poverty strategy, including a new definition of fuel poverty, closed on 1 February 2018 and responses to that will inform a Warm Homes Bill to be introduced later this year to set a new fuel poverty target.

The chart overleaf illustrates how the proportion of fuel poor domestic energy consumers in Scotland has evolved.

Figure 2 – Proportion of domestic energy consumers in fuel poverty and extreme fuel poverty and the fuel price index (2003-2016)



Source: Scottish Government (2016), *Scottish House Condition Survey: 2015 Key Findings*¹⁰

The proportion of domestic energy consumers in fuel poverty and extreme fuel poverty has, on average, increased between 2003 and 2016. The decline from 2014 resulted from a drop in fuel prices.

Many of those in fuel poverty are likely to be part of the significant group of consumers who do not regularly switch energy suppliers or who have never switched. Most of these will therefore be on a standard variable tariff, which for the majority of consumers will be the most expensive option. It is estimated that the average consumer on one of these tariffs would save over £300 per year by switching to a different supplier, or choosing a different tariff with the same supplier.¹¹

In Scotland, households in rural and island areas are most likely to be in fuel poverty, while the largest cities (Aberdeen, Edinburgh and Glasgow) tend to have lower rates of fuel poverty. This is partly due to the housing stock in rural areas tending to be larger and harder to heat, as well as the higher likelihood of being off the gas grid (and so relying on higher-cost electrical or oil heating). Appendix A provides an analysis of Fuel Poor Households by Local Authority.

2.3 The opportunities for an Energy Co.

Given the problems identified in the energy market, there is clearly an opportunity for an Energy Co. if it could address some or all of these problems - to make a significant contribution to Scottish society and help to deliver on SG's energy strategy.

¹⁰ Scottish Government (2016) <http://www.gov.scot/Resource/0051/00511081.pdf>

¹¹ Ofgem (2017), State of the energy market 2017 report

https://www.ofgem.gov.uk/system/files/docs/2017/10/state_of_the_market_report_2017_web_1.pdf

To do this the Energy Co. would need to be able to:

- ▶ Consistently provide competitive tariffs to attract and retain customers
- ▶ Help to reduce energy bills by reducing energy consumption e.g. by further supporting the roll-out of energy efficiency measures beyond the current interventions
- ▶ Encourage customers to switch suppliers by being perceived as a trustworthy brand that will continue to deliver competitive prices.

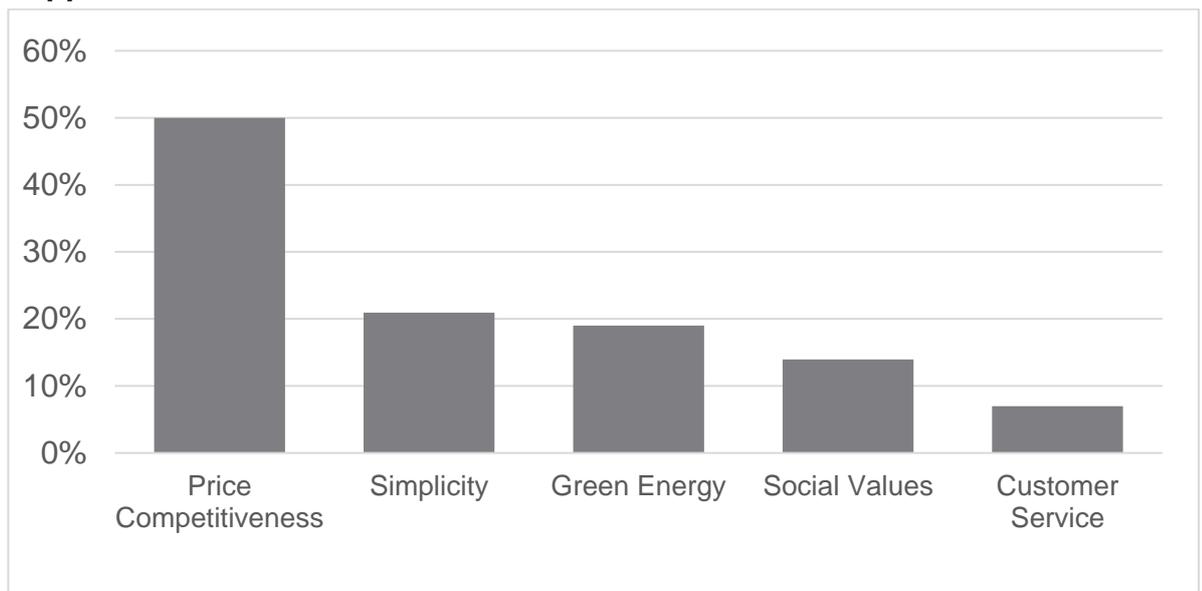
We explored whether the Energy Co. would be able to deliver these opportunities in practice in the following sections. Additionally, we have reviewed potential opportunities the Energy Co. may present by supporting economic development and growth.

2.4 Could an Energy Co. reduce energy costs?

Where new suppliers have been able to reduce the cost of energy, they have been successful at attracting those customers that are most engaged with the market (i.e. those most willing to switch provider for a lower price or higher level of service).

Price competitiveness is the single most common factor energy suppliers promote to try and attract customers, as shown by an assessment of the websites of the 42 domestic energy suppliers operating in Scotland (see Figure below).

Figure 3 – Features advertised to domestic consumers by energy suppliers in Scotland¹²



Source: Which? and EY analysis

¹² Factors are not mutually exclusive, i.e. an energy supplier may advertise more than one feature, and so percentages do not add to 100%

The analysis highlights the following key messages:

- ▶ Half of the domestic energy suppliers in Scotland advertise low prices as a primary reason for why customers should choose to purchase their energy from them. Primarily, these offerings are in terms of being a cheaper alternative to the current tariff a customer is on elsewhere
- ▶ More than one out of five domestic energy suppliers in Scotland include some aspect of simplicity in their offering, either in the form of simple to understand tariffs, ease of switching to them, or tariffs with no exit fees. For example, Go Effortless Energy go by the slogan “honest, simple, fair”.¹³ Also, Ovo Energy advertise themselves as having “honesty and openness”. For this they are advocating that tariffs and bills are easy to understand, pricing is transparent and there are no hidden rates or fees¹⁴
- ▶ Renewables are a focus for a number of the energy suppliers in Scotland, with it being a notable feature for approximately 19% of them. Green Energy and Good Energy have been specifically developed to supply clean energy to their customers.^{15,16} Good Energy has 71,000 electricity customers and 43,000 gas customers as of 2017 – suggesting some customers may value supplier attributes other than price. However, it is not possible to determine within this study whether these customers constitute a sustainable market as this will depend on the number of suppliers serving this market and their business models
- ▶ Social values, with the role the company is playing in the wider community, is a feature advertised to attract new domestic energy customers. This is seen as a selling point for 14% of the energy suppliers
- ▶ Good customer service is an attribute which only 7% advertise prominently. For many it is a minor point, but Green Network Energy is one of the few that make it a key point¹⁷.

If the Energy Co. could provide competitive pricing (notwithstanding State Aid restrictions) it should be well positioned to attract customers. The pricing set by Energy Co do not need to be the lowest in the market to benefit customers who are currently disengaged from the market. The breadth of available market tariffs will also increase the opportunity to provide competitive pricing. To understand this further we consider the current performance of energy suppliers in the market and the cost of providing energy. Appendix B provides an understanding of the market context and regulatory requirements.

¹³ Go Effortless Energy, <https://goeffortless.co.uk/prices/>

¹⁴ Ovo Energy, <https://www.ovoenergy.com/>

¹⁵ Green Energy, <https://www.greenenergyuk.com/>

¹⁶ Good Energy, <https://www.goodenergy.co.uk/>

¹⁷ Green Network Energy, <https://greennetworkenergy.co.uk/>

2.4.1 Performance of existing energy suppliers

The domestic energy supply market was opened to competition in 1998. Over time the number of suppliers competing in the market has increased and there are currently 42 active energy companies offering energy tariffs to domestic consumers in Scotland (See Appendix C for detail). The majority of these companies (81%) are currently supplying both gas and electricity, with six offering gas-only tariffs and only two offering electricity-only tariffs. This includes the 'Big 6' energy companies, and 36 small or medium sized suppliers.

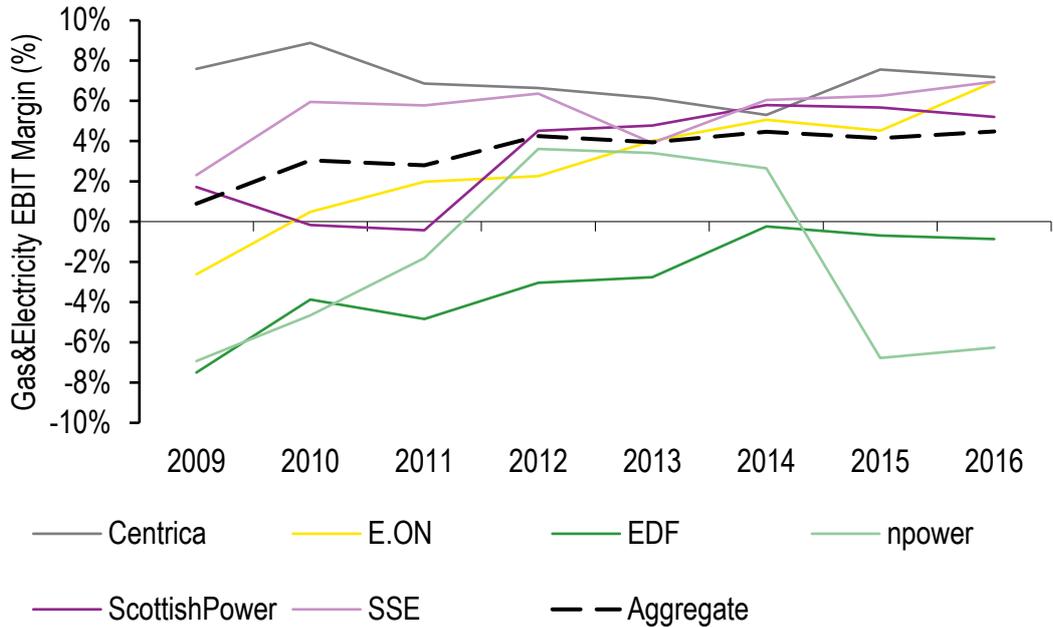
Out of 42 domestic energy suppliers offering services in Scotland, approximately half recorded losses in their most recent financial statements, including two of the 'Big 6'. It is important to note, that many of these companies (excluding the 'Big 6') are in the early years of development therefore this is to be expected. Additionally, loss making domestic energy suppliers is a nationwide issue and not specific to Scotland. Of those that recorded a loss, 15 (over 70%) were incorporated after 2010. All, but one, of the loss making suppliers offer both gas and electricity. The margins suppliers expect from both gas and electricity is further discussed in the following section.

Two of the 'Big 6' supplier companies SSE and Npower, recently confirmed a merger. This transaction would reduce the 'Big 6' down to five (reference to the 'Big 6' in the remainder of this report recognises that this will become 'Big 5' in the future). The new organisation is expected to be roughly the size of market leader British Gas and serve 11.5 million customers. SSE the UK's second largest energy supplier, recently reported a decrease in pre-tax profits by 13.9%. The vision for the new firm is to be more agile, innovative and establish efficiencies that can be passed onto consumers. The merger demonstrates the constraints on even some of the larger suppliers in the market to remain profitable.

2.4.2 Supplier margins

Supplier pre-tax margins account for the profits for generators, network companies and suppliers. For the 'Big 6' dual-fuel energy bill, the pre-tax margin accounts for approximately 5% of the total household bill, with average margins for the 'Big 6' having risen significantly from 2009, as shown below. However, profits earned by the 'Big 6' have reduced during this period as they serve fewer customers and as households use less energy.

Figure 4 – Pre-tax domestic supply margins of large suppliers

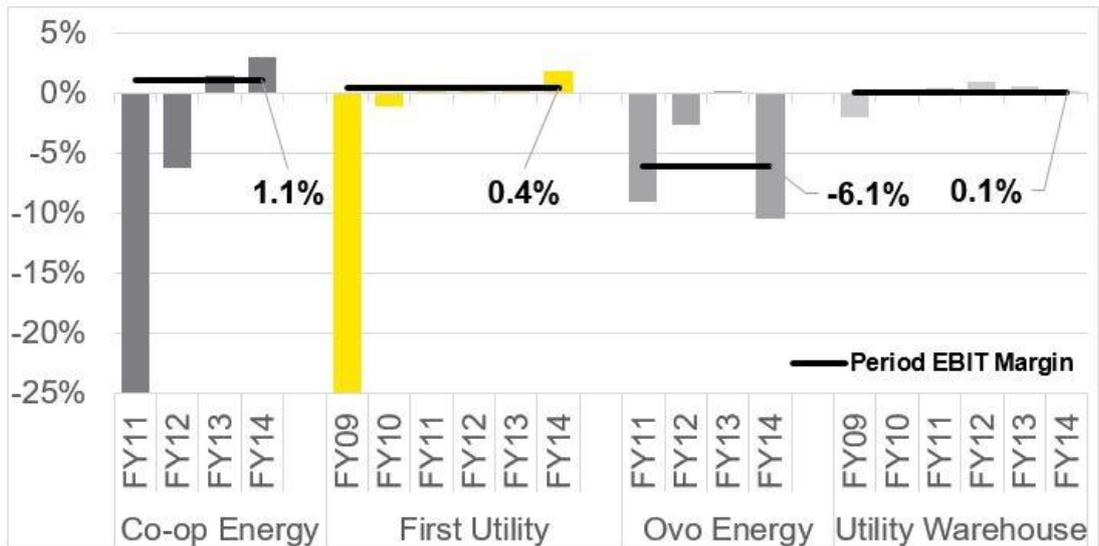


Source: Ofgem

Profit margins differ significantly across products and suppliers. In 2017, the pre-tax margins for the ‘Big 6’ providers were 11% for gas-only tariffs and -1% for electricity-only tariffs.

Moreover, margins for smaller suppliers tend to be significantly lower than those earned by the ‘Big 6’. As illustrated in the figure overleaf, CMA analysis indicates that mid-tier suppliers had very mixed performance over the relevant period, with all of them making losses in at least one year and, in the years where they made profits, earnings before interest and tax (EBIT) margins of between 0.1% and 3.0%.

Figure 5 – EBIT margins for Mid-tier suppliers, FY09 to FY14



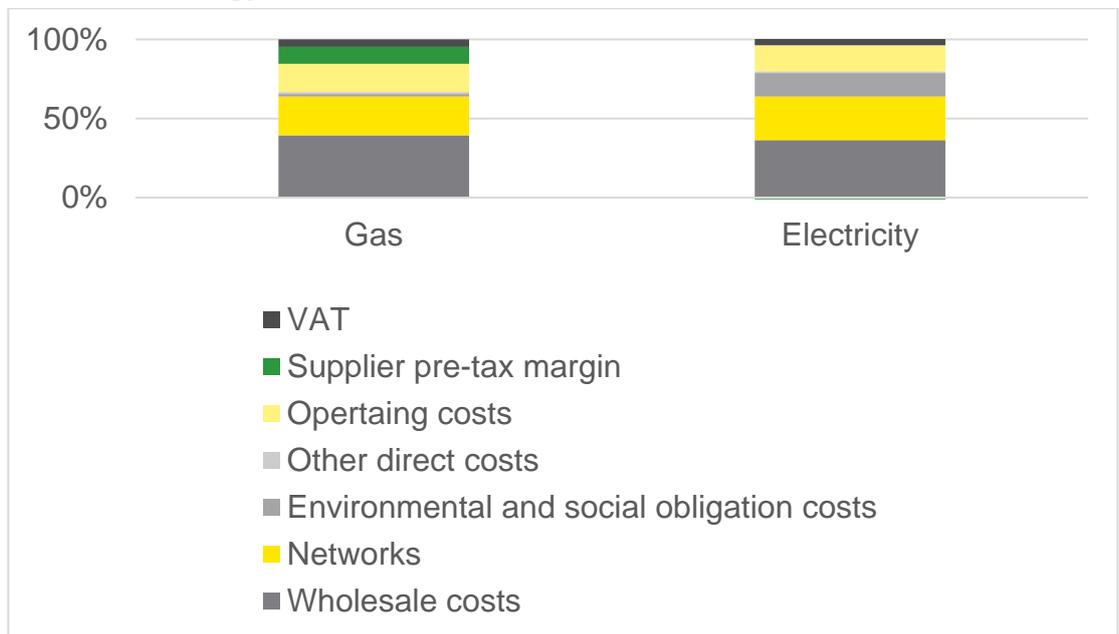
This difference in margins between the ‘Big 6’ and other suppliers highlights the difference in profit margins between customers on a Standard Variable Tariff (SVT) and those on fixed term deals. For instance, 64% of all domestic customers as of April 2017 were on a SVT, whereas this proportion is only 37% for customers not with non-Big 6 suppliers. Many of the customers with ‘Big 6’ suppliers are disengaged with the market – with approximately one third of customers having been on that supplier’s SVT for at least three years.

This analysis indicates that, on average, supplier margins can be limited. This may present significant challenges to establishing a self-financing Energy Co. in a highly complex and competitive market.

2.4.3 Local energy generation and energy efficiency

The Energy Co. may also be able to achieve cost efficiencies through its objective of sourcing local energy generation. Energy bills for domestic energy customers include a number of elements, namely: the wholesale energy cost, the cost of transporting the energy via networks, social and environmental policy costs (as set out in the previous section), suppliers’ own costs and margin and VAT.¹⁸ The figure overleaf sets out the estimated proportions of these elements in an average gas and electricity bill.

Figure 6 – Estimated breakdown of an average gas and electricity bill for domestic energy consumers



Source: Ofgem (2017), Breakdown of a gas bill/Breakdown of an electricity bill^{19,20}

Wholesale costs make up the biggest part of a typical energy bill (36%).²¹ Wholesale costs include the fuel commodity costs, the additional carbon costs

¹⁸ VAT is set at 5% for domestic energy bills.

¹⁹ Based on data from the Big 6.

²⁰ Ofgem (2017), <https://www.ofgem.gov.uk/electricity/retail-market/retail-market-monitoring/understanding-profits-large-energy-suppliers>

and taxes applied through the EU Emission Trading Scheme (ETS) and the UK Carbon Price Floor.

The second largest component of energy bills is network costs (26%). These are the costs recovered from suppliers to cover the maintenance of the distribution and transmission networks.

There is also the option to invest in generation, however this typically entails significant upfront cost and carries its own set of risks. Investors would require a rate of return on their investment that compensates them for these risks. Consequently, if the Energy Co. is willing to accept a lower rate of return (subject to State Aid restrictions) then it may be able to identify cost-effective options that would not be available to others.

2.5 **Could an Energy Co. encourage energy efficiency more successfully than existing suppliers?**

We have established how Energy Co. could seek to reduce the cost of energy for consumers, but there are other methods of reducing energy bills. A number of measures have been taken to try and promote energy efficiency as a way of reducing energy consumption among end users, particularly among the fuel poor.

Companies which promote energy efficiency include Energy Services Companies (ESCOs). ESCOs provide a commitment to deliver energy services to a specified level of performance and reliability. Activities can include financing, designing, building, operating and maintaining small-to-medium scale demand management and/or low carbon energy projects.²² ESCOs differ from the traditional model of energy suppliers, (whose role is to trade energy, and meter and bill their customers) as the ESCO's revenue stream is decoupled from customer consumption to some extent; this is particularly true for ESCOs focusing on energy performance contracts where the ESCO is incentivised to reduce its customers' energy consumption.

ESCOs are a growing feature of the energy retail landscape. For example, there are numerous companies providing energy services in the UK (at least 50 companies²³), ranging from independent ESCOs, e.g. Anesco and Ameresco, to utilities companies, e.g. British Gas and EDF, or LAs such as Birmingham District Energy or Thamesway Energy. The UK Energy Research Centre, identifies three broad models of ESCOs in the market today:²⁴

1. **Commercial Model:** This involves providing services as a way to retain large industrial customers on a long term supply contract. ESCOs may

²¹ Figure 1.3 of Ofgem 2017 State of the Market Report

²² Ofgem (2015), Non-traditional business models: Supporting transformative change in the energy market <https://www.ofgem.gov.uk/ofgem-publications/93586/non-traditionalbusinessmodelsdiscussionpaperpdf>

²³ Nolden C., Sorrell S. (2016), *The UK market for energy service contracts in 2014–2015*, Energy Efficiency (2016) 9: 1405-1420

²⁴ UKERC (2005) Unlocking Energy Services: Main Findings of a Joint SDC/UKERC seminar. <http://www.ukerc.ac.uk/publications/unlocking-energy-services-main-findings-of-a-joint-sdc-ukerc-seminar.html>

also provide services as part of a facilities management approach to commercial and public sector buildings. Examples of this model include Anesco and British Gas

2. Community Model: ESCos are set up to serve a range of customers in the same locations, e.g. large housing developments, on a range of services such as design, build, finance, maintenance and billing. In this model, decisions are taken on behalf of a group of customers. Examples of this model include, Leicester District Energy Company and Birmingham District Energy
3. Domestic energy supplier model: In this model, ESCos (typically traditional energy suppliers in this case) provide services to domestic customers. This has so far proven to be the most difficult market to break into for ESCos. However, under the Energy Efficiency Commitment, micro generators play an important role in the offering that ESCos can provide to this market segment. Examples of this model include EDF.

A number of Local Authorities (LAs) in Scotland have established their own ESCos, including:²⁵

- ▶ City of Edinburgh Council – Under the Climate Change (Scotland) Act 2009 public sector bodies, including LAs, are required to develop Carbon Management Plans as a key tool in tackling climate change and associated Sustainable Energy Action Plans (SEAP). The establishment of an ESCo is key to the delivery of a number of projects in Edinburgh Council's SEAP. Energy for Edinburgh's²⁶ key objectives include reducing carbon emissions, delivering affordable energy with a focus on alleviating fuel poverty, and encouraging wider community benefits.
- ▶ Aberdeen – In 2002 Aberdeen City Council set up Aberdeen Heat and Power (AHP)²⁷, which is a not-for-profit company that operates district heating and Combined Heat and Power (CHP) schemes in the area. In 2013, a wholly owned subsidiary, District Energy Aberdeen Ltd (DEAL), was established to enable commercial customers to be connected into the heat network. Any profits made are transferred back to the parent company to help offset more of the capital costs of developments to achieve affordable heat pricing and further the aims of reducing fuel poverty.

Many of these ESCos have focused on large industrial customers, but some have targeted domestic customers as well. If the Energy Co. were to adopt a

²⁵ Roche (2016), The role of Local Authority Energy Companies and Community Energy Co.-operatives in Building a Low Carbon Energy System for Scotland

²⁶

http://www.edinburgh.gov.uk/news/article/2152/edinburgh_eyes_greener_future_as_new_sustainable_energy_company_takes_shape

²⁷ <http://www.aberdeenheatandpower.co.uk/>

similar strategy it may be able to help reduce energy bills more effectively than existing suppliers.

The Energy Co.'s socially-minded objectives would also make it more willing to invest in education programmes and work with customers to reduce energy consumption that could make its attempts to encourage energy efficiency and build a trusted brand more effectively.

2.6 Could an Energy Co. encourage customers to switch suppliers?

A significant driver of high energy prices and fuel poverty in Scotland is the lack of customer engagement in the existing energy market, with low rates of customers switching suppliers due to a lack of trust in the market.

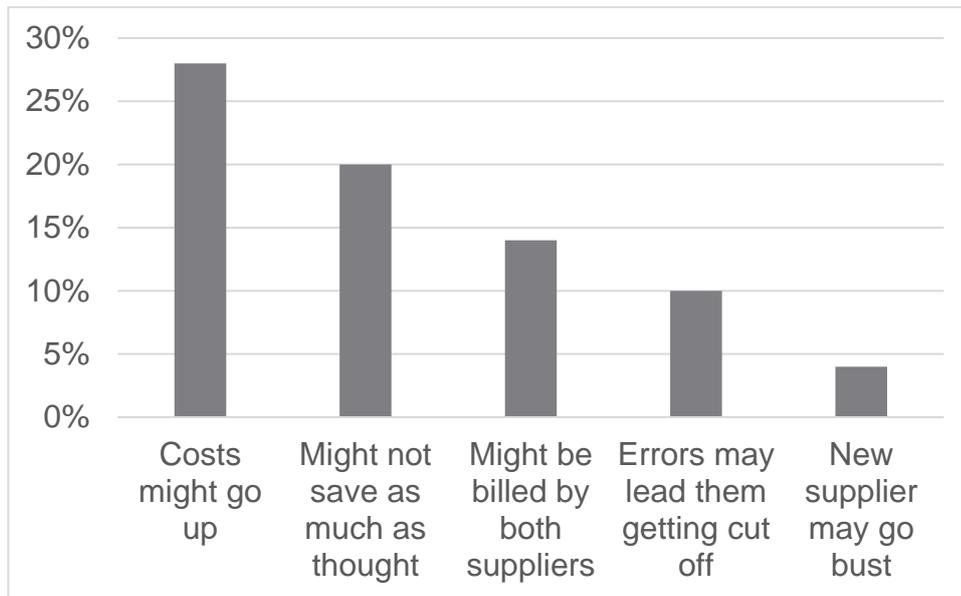
Ofgem noted in its last Retail Energy Market report that Scotland has lower switching rates than the rest of GB; the switching rate in Scotland was 10% for electricity in 2015, compared to 12% across all of GB.²⁸

This regional difference can also be seen in a survey by 'Which?' conducted this year. The survey found that 30% of 'Which?' members surveyed in North Scotland, and 18% in South Scotland, had never switched energy supplier, compared to 9%-18% in regions elsewhere in GB.²⁹ However, it is noted that the opportunity for consumers to switch in areas such as the North of Scotland may be more restricted due to a limited number of providers available.

Ofgem's 2017 State of the Energy Market report presented findings on the perceived risks of switching, presented below, which provides some insight into why customers may not switch.

²⁸ Ofgem (2016), https://www.ofgem.gov.uk/system/files/docs/2016/08/retail_energy_markets_in_2016.pdf

²⁹ Which? (2017), <https://www.which.co.uk/news/2017/10/is-your-region-the-best-at-switching-energy-supplier/>

Figure 7 – Perceived risks of switching

Source: Ofgem³⁰

Ofgem has also identified a number of consumer biases that are likely acting as impediments to consumers' decisions to switch provider even where there are significant bill savings to be made from doing so. These biases include: limited consumer capacity - consumers encounter difficulties in decision making when faced with a large number of options and significant information about each of them. This can lead them both to make sub-optimal decisions and to not seek out the most relevant information.

- ▶ Status quo bias – consumers place extra value on what they already have. This coupled with the ease of staying with the current supplier can lead to significant number of customers never switching supplier
- ▶ Loss aversion – consumers attach more weight to possible monetary losses than the same monetary gain. This has implications in markets with a lot of choice, not only do they prefer what they have, the possibility of losing if they move would need to be significantly outweighed by any potential overall benefit. For example, even if a consumer could see a financial benefit in switching they may not be willing to take the risk that customer service may be slightly worse
- ▶ Time inconsistency – consumers have a preference for immediate returns rather than considering the longer term outlook. This suggests that 'teaser rates', where customers are lured in with savings in the short term even with higher rates in the long term, could be used to attract customers. It is suggested that this bias can put people off fixed rate deals that are more beneficial in the longer term.

³⁰ Ofgem (2017), State of the energy market 2017 report
https://www.ofgem.gov.uk/system/files/docs/2017/10/state_of_the_market_report_2017_web_1.pdf

Consumer biases can result in consumers not behaving ‘rationally’, i.e. not making decisions that are in their best interests. Without this challenge, there is no incentive for larger profitable companies to reduce their tariffs. There are existing socially minded suppliers in the market who are focused on promoting their social values as a way of engendering trust amongst customers and encouraging them to switch their energy supply. These suppliers may typically owned by a LA or housing provider. Examples of socially minded suppliers include Bristol Energy, Robin Hood Energy and Our Power. These suppliers aim to provide energy to customers at lower prices by;

- ▶ Not paying dividends to shareholders
- ▶ Finding more efficient ways to operate
- ▶ Generating their own power
- ▶ Reinvesting any profits to further benefit customers and their communities.

As many of the socially minded suppliers are relatively new to the market, it is not yet apparent how sustainable these lower prices are or to what extent these suppliers have been able to reduce costs. Each have reported losses, £7.7m in 2017 for Bristol Energy,³¹ £2.5m in 2016 for Robin Hood Energy,³² and £0.9m for Our Power in 2015.³³

2.7 **Could an Energy Co. support economic development and economic growth?**

SG’s purpose, as set out in Scotland’s Economic Strategy, is to create a more successful country, with opportunities for all, by increasing sustainable economic growth.

An objective of the Energy Co. is to deliver competitively priced energy. In doing so it seeks to provide energy customers with more choice, particularly for those where fuel poverty is a key concern.

On successful implementation an Energy Co. has the potential to:

- ▶ support sustainable economic growth by supporting local energy generation and energy efficiency
- ▶ delivering a lower cost of capital for supplying energy to Scottish customers
- ▶ encouraging energy efficiency more successfully than existing suppliers

³¹ http://bristolenergy-public.s3-eu-west-1.amazonaws.com/BD9517%20-%20Bristol%20Energy%20Annual%20Review_p1-17.pdf

³² Companies House accounts, <https://beta.companieshouse.gov.uk/company/08053212>

³³ Companies House accounts, <https://beta.companieshouse.gov.uk/company/SC472682>

- ▶ inspiring customers to switch suppliers.

Energy Co.'s not-for-profit status may, in time, result in lower energy prices and bills (subject to minimal consumer substitution effects). Whilst this may have an adverse impact on industry margins and finance availability within the energy sector supply chain, it would be expected to support real disposable incomes for energy users across Scotland. Depending on patterns of spend and household or business types, this transmission mechanism could provide net economic support to wider activity across the Scottish economy.

Any economic impact will not be driven solely by the potential reductions in the price of energy, but also, in time, by reductions in energy bills through enhanced energy efficiency. This could play a critical enabling role in any resulting economic impact. For example, a net socio-economic return may be realised by encouraging increased levels of energy efficiency amongst energy users more successfully than existing energy suppliers.

Analysis undertaken by the University of Strathclyde International Public Policy Institute's Centre for Energy Policy suggests that greater energy efficiency amongst low income households could lead to a sustained uplift in Scottish GDP, employment and public finances.³⁴ The key transmission mechanism, in terms of fuel poverty, is that not only will spending on energy by low income households fall, the purchasing power of low household real incomes could rise in a sustained manner.

The availability of energy suppliers differs across Scottish geographies (for example, northern Scotland, where there are currently more limited numbers of suppliers in the market). This results in limited levels of competition in some areas. The introduction of the Energy Co. and the resulting increase in the choice of suppliers, lower energy prices and the potential ability to improve the provision of competitive offers from suppliers, could alter the competitive landscape across some geographies, subject to existing network constraints and charges. This, coupled with other improvements in the access to and cost of other utilities (e.g. broadband), means the Energy Co. has the potential to further impact potential productive capacities in more rural regions in Scotland. This may encourage additional investment and economic activity.

As a market innovation, the Energy Co. has the potential to support a number of Scotland's Economic Strategy pillars, namely: Investment, Innovation and Inclusive Growth. A quantified estimate of the potential economic impact has not been undertaken at the SOC stage. However, we recommend that further analysis be undertaken at OBC stage to consider the potential economic impact of each of the short-listed options in more detail.

³⁴ Turner, Karen and Katris, Antonios and Riddoch, Fiona and Figus, Gioele (2017) Potential Economic Impacts of the Scottish Government's £20million 'Post-Brexit' Energy Efficiency Spending Stimulus.

2.8 Energy Co. objectives

Noting the problems in the Scottish energy market and opportunities for the Energy Co. to positively address some or all of those problems, the objectives of the Energy Co. can be summarised as follows:

- ▶ Deliver competitively priced energy which will, among other things, help to alleviate fuel poverty
- ▶ Promote locally sourced renewable energy in the medium to long term
- ▶ Be publicly owned and will be operated on a not-for-profit basis (either explicitly, or de facto and subject to State Aid restrictions, with a commitment to re-invest any surplus or profits)
- ▶ Support growth of the Scottish Economy.

2.9 Remit

In order to translate the objectives of the Energy Co. into specific activities that it would engage in, we have made the following assumptions:

- ▶ The Energy Co.'s priority will be to provide low cost energy to help alleviate fuel poverty. This is followed by the secondary objective of sourcing energy locally and from renewable sources
- ▶ Depending on the chosen operating model, there may be a need for the Energy Co. to operate actively in the energy wholesale and retail markets. This will require an appropriate supply licence
- ▶ There are certain activities that are unlikely to be part of the Energy Co. remit at start up stage, but there is a commitment to retaining flexibility to allow the company to respond to changes in the wider energy market

The Energy Co.'s initial objectives are to help to alleviate fuel poverty by providing competitively priced energy. This, however, is not limited to domestic consumers and could look to incorporate non-domestic consumers.

The remit of the Energy Co. has been categorised into three sections. The activities for each phase have been detailed below.

- ▶ Remit for Phase 1 – establish capability and strategy:
 - ▶ Acquire energy at competitive prices and pass onto customers at lowest possible costs, for example a mark-up to cover overhead only
 - ▶ The primary focus would be supply of electricity and gas
 - ▶ Incorporate price information and / or assisting in changing supplier to the Energy Co.

- ▶ Remit for Phase 2 – medium term (subject to successful delivery of Phase 1):
 - ▶ Increase proportion of energy from renewable sources
 - ▶ Incorporate other forms of energy supply, e.g. district heating
 - ▶ Provision of energy efficiency measures.
- ▶ Remit for Phase 3 – long term:
 - ▶ Increase to offer other utility services, such as broadband, as part of product offer to consumers
 - ▶ Potential to participate in energy generation by investing in renewable energy projects.

The remaining sections of the SOC explore the potential delivery structures for the Energy Co., review the financial and commercial considerations for the Energy Co. and discuss how these would be further explored at the OBC stage.

2.10 Conclusions

The Strategic Case demonstrates that the Energy Co. could be successful in addressing some of the problems in Scotland's energy market, including alleviating fuel poverty. In summation it could begin to resolve the issues through:

- ▶ Reducing energy costs
 - ▶ The Energy Co. will be not-for-profit, it won't charge a profit margin on its activities and will only be required to cover its costs. The analysis indicates that there is little to no margin on the sale of electricity, however the sale of gas is more profitable. The OBC will analyse further whether it would be possible for the Energy Co. to provide energy at competitive prices and remain self-financing by reviewing this in more detail.
 - ▶ The pricing set by Energy Co do not need to be the lowest in the market to benefit customers who are currently disengaged from the market.
 - ▶ The Energy Co. would look to optimise the supply and demand of locally sourced energy to reduce the cost of delivering energy.
- ▶ Encouraging energy efficiency more successfully than existing suppliers
 - ▶ Consumers may be more likely to trust the Energy Co. brand, which would enable it to roll out energy efficiency measures where others have not been successful. The Energy Co.'s socially-minded objectives could also facilitate investment in education programmes and working with customers to reduce energy consumption.

- ▶ Encouraging customers to switch suppliers
 - ▶ An Energy Co., as a public sector initiative, may be able to build a greater and more positive brand awareness and could leverage the extensive media outlets available to the public sector to communicate with a number of disengaged customers that would otherwise have remained with an uncompetitive tariff.
 - ▶ The Energy Co would also need to recognise that it would need to be continually competitive in the marketplace to ensure that they are able to retain customers who have switched.
- ▶ Supporting economic development
 - ▶ Energy Co. has the potential to support a number of Scotland's Economic Strategy pillars, namely: Investment, Innovation and Inclusive Growth.

3. Socio-economic Case

3.1 Introduction

A key focus of the SOC is to objectively explore potential delivery structures for the Energy Co. This section reviews the proposed long list of options and provides initial considerations for appraisal to arrive at a short list. We also summarise the likely Office of National Statistics (ONS) classification considerations for the Energy Co.

3.2 Long list of options

A long list of options has been compiled from a desktop review to identify existing delivery structures. This has been supplemented with input from SG's project team. The long list captures the range of options available to SG a national Energy Co. The list also includes structures that would facilitate regional influence at a LA level.

The appraisal shortlisting process involves undertaking a qualitative review of the long list of options before identifying and excluding delivery structures that do not adequately meet the objectives of the project. The following table describes the delivery structure options, including initial commentary on governance and budgetary matters.

Table 5 - Long list of delivery structure options

	Delivery Option	Description
1	Do nothing	SG does not pursue the creation of the Energy Co. This option forms the counterfactual for the SOC.
2	New internal unit	The Energy Co. would be an internal unit within the Energy and Climate Change Directorate of SG. The unit would be responsible for delivering the agreed aims and objectives. SG will retain direct control and it will be delivered by a dedicated team within the Directorate and no formal separation would exist. The funding of this model would fall within the existing SG budgetary arrangements.
3	Existing socially minded supplier	The Energy Co. would utilise an existing socially minded supplier as the future delivery structure. Existing ownership and governance arrangements may need to be reviewed to ensure appropriate SG control.
4	Existing Public Corporation, for example, Scottish Water	The Energy Co. would utilise an existing Public Corporation, for example Scottish Water. As a subsidiary within Scottish Water, the Energy Co. would likely be a government controlled market body, providing a service for sale of energy to the general public. As a part of Scottish Water, the Energy Co. could draw from the (non-domestic) customer facing capabilities of

Delivery Option	Description
	<p>the existing Business Stream subsidiary. Therefore, and in order to draw on that capability directly, it may make sense to consider establishing the Energy Co. as a subsidiary of Business Stream. Careful consideration would need to be given to how SG would retain direct control of such a subsidiary, given the complex current Scottish Water corporate structure (Business Stream is not a direct subsidiary of Scottish Water) as well as the regulatory separation of Business Stream and its (ultimate) parent Scottish Water.</p>
<p>5 Executive Agency</p>	<p>SG will create a new distinctive Executive Agency responsible for carrying out the objectives of the Energy Co. Executive agencies can be used to carry out discrete areas of work on behalf of government under the responsibility of a specific Department. Examples include Transport Scotland.</p> <p>An appropriate governance framework would need to be developed in order to give SG (and the Energy Directorate) appropriate policy control, with delegated authority given to management to deliver on the Energy Co.'s operational objectives. It will be funded by SG and would fall under SG budgetary arrangements and classed as General Government.</p>
<p>6 Non-departmental public body (NDPB)</p>	<p>Creation of a new NDPB. This would be an arm's length Government Body, outside the direct control of Ministers. Examples include Scottish Enterprise and Highlands and Islands Enterprise. Once incorporated, NDPBs are typically somewhat self-determining (subject to delivering a specific Statute). NDPBs receive funding from SG (to meet statutory obligations), but are able to supplement their income from other sources. NDPBs may also have borrowing powers.</p>
<p>7 Charity</p>	<p>A separate charitable organisation could be established, including a charitable incorporated organisation or company charity. The organisation would be regulated by the Office of the Scottish Charity Regulator (OSCR). A charity would be able to be funded through charitable donations and/or grants.</p>
<p>8 Community Interest Company (CIC)</p>	<p>The Energy Co. would be established as a CIC. As a CIC, the Energy Co. would use its profits and assets for the public good, for the benefit of a community. A CIC may be established as a company limited by guarantee or limited by shares subject to the Companies Act. The CIC would have governance through a board of directors.</p>

	Delivery Option	Description
9	Local Authority Energy Service Company (ESCO)	The ESCO would be an arm's length incorporated company (from SG). It would be jointly owned by one or more LA and SG would have no direct control over the ESCO. Funding can be provided by the LAs (or raised externally).
10	Local Authority Joint Board	The Energy Co. would consider an un-incorporated delivery structure run through a Joint Board between several LAs. Governance models for Joint Boards are flexible and largely at the discretion of the relevant LAs. The Joint Board of representatives would oversee the delivery of the joint undertaking. Funding would be provided by the respective LAs.
11	Government owned company	<p>Creation of a new limited company (by shares or guarantee). It would be 100% owned by SG, governed by the Companies Act and would include an appointed Board of Directors. An example of a relevant entity would be Skills Development Scotland.</p> <p>SG would appoint the Chairman and Board of Directors to ensure its policy objectives and interests would be reflected in the Company Strategy and Business Plans. The Board would oversee an Executive Management Team.</p>
12	Federal model	<p>Creation of a SG incorporated "Topco" company with the potential for joint venture subsidiaries operated by individual LAs. The subsidiaries may White Label the supply of electricity and gas from the Energy Co. and bring a locally branded supply to the market. There is an opportunity for the products to be consistent across the LAs. Individual LAs will decide whether they participate in the vehicle.</p> <p>The top company would be controlled by SG (through Board representation as per a Government Company). Governance arrangements would need to be agreed for the regional subsidiaries, including delegated remit. Funding would be through SG (as shareholder) with the potential for third party funding (including through trading profits).</p>

Source: EY and SG

3.3 Assessment criteria

The suitability of each delivery structure was reviewed using an appropriate set of appraisal criteria. These are based on the objectives of the Energy Co. and can be summarised as follows:

- ▶ Provide low cost energy and help alleviate fuel poverty
- ▶ Locally sourced renewable energy - energy will be sourced, in the medium to long term, in Scotland and will be from renewable sources
- ▶ Ownership and model – the Energy Co. will be publicly owned and will be run on a not-for-profit basis (either explicitly or de facto based on a commitment to re-invest any surplus/profits).

Based on these objectives, the following criteria has been developed. The list does not include a criterion that assesses the set up costs of each option. The initial legal and regulatory set up costs for each of the options is not considered prohibitive. The wider financial cost of establishing the Energy Co. has been examined in the Financial Case. These criteria have been discussed and agreed by SG.

Table 6 - Delivery Options Appraisal Criteria

Appraisal criteria	Description
a. Oversight and control (Policy objectives)	The model must ensure that SG's policy objectives are delivered and SG are able to influence the strategic direction of the Energy Co.
b. Quality and fairness of service	Given the profile of the initiative and potential for scrutiny and public interest reporting, the Energy Co. must provide services that adhere to principles of quality and fairness.
c. Flexibility (e.g. changes in remit over time)	In the event the remit of the delivery structure changes over time, it would need to be able to absorb such changes.
d. Operational / cost efficiency (Ability to self-finance)	The objective of providing low cost energy will necessitate efficient and low cost delivery and operating models.
e. Time to set up	The time required to establish the Energy Co. vehicle should not be prohibitive and should be completed by 2021.
f. Not-for-profit (explicit or de facto by commitment to re-invest)	This principle will need to be accommodated by the model, whether explicitly or de facto (e.g. through a commitment to re-invest any profits).

Appraisal criteria	Description
g. Governance: Clear and transparent	Similar to quality of service, the high profile and potential for challenge should drive a transparent and relatively simple delivery structure.

Source: EY and SG

3.4 Shortlisting process

Each of the long list options have been evaluated against the criteria to establish a short list of appropriate options to take forward to OBC. The following scoring mechanism has been used.

Table 7 - Shortlisting process

Indicator	Description
	The delivery structure satisfies the appropriate appraisal criteria.
	The delivery structure partially satisfies the appropriate appraisal criteria.
	The delivery structure does not satisfy the appropriate appraisal criteria.

Source: EY

An evaluation exercise has been undertaken to review each option against the appraisal criteria. This has resulted in a recommendation whether to progress the option to the shortlist. If an option was shown not to satisfy the appropriate appraisal criteria, then it has been excluded from the short list.

3.5 Short list of options

Based on the analysis described, we recommend that the following four options are explored further:

1. Do nothing
2. Existing socially minded supplier
3. Government owned company
4. Federal model.

3.6 Alternative appraisal processes

The appraisal process described above has been developed on the assumption that the Energy Co. is established to address a specific set of

objectives, namely to deliver competitively priced energy which will help to alleviate fuel poverty. As a result, the appraisal criteria and shortlisting process has been carried out with this fundamental principle at its core.

It is important to note, however, if this underlying principle were to evolve, the appraisal methodology can be updated. For example, SG may seek to refine proposals for the Energy Co. to adopt a more holistic set of objectives. Alternative objectives may include:

1. The Energy Co. focussing on the dual impact of tackling fuel poverty and driving economic development
2. The Energy Co. being implemented by a wider group of public sector stakeholders, including LAs.

3.6.1 A focus on economic development

SG may seek to expand the objectives of the Energy Co. to focus on the dual impact of tackling fuel poverty while also driving economic development. In the Strategic Case, we identified ways in which the Energy Co. could support economic development and economic growth. We noted that, as a market innovation, the Energy Co. has the potential to support a number of Scotland's Economic Strategy pillars, namely: Investment, Innovation and Inclusive Growth.

If this approach was adopted, the evaluation criteria could be expanded to include criteria that could appraise the long list of options.

If SG were to refine the appraisal methodology in this way, the shortlist of options may need to be re-examined. Nevertheless, based on an initial assessment, each of the identified options are capable of driving economic growth.

3.6.2 Non SG implementation, control and funding

There are a number of ways in which the objective of the Energy Co. may evolve, including the focus on economic development described above. It is important to note, however, that given the complex legislative environment, SG may seek alternative delivery models that involve other stakeholders. It may be appropriate for SG to seek alternative means of funding and controlling the Energy Co. This may be achieved by pursuing more localised implementation objectives at a LA level.

As before, a new appraisal methodology would need to be developed that focussed on this new objective. The long list of options already identifies a number of vehicles that could be appraised in this way. As before, if this new methodology were adopted, the shortlisting process should be updated to assess the most appropriate models to take forward. It is likely, however, that the NDPB, Local Authority ESCO, Local Authority Joint Board and Federal model would be most appropriate for these objectives.

We recommend that, prior to the development of the OBC, SG agree on the fundamental principles that underpin the development of the Energy Co.

3.7 Classification considerations

On establishment of Energy Co., its sector classification will be determined by the ONS. Appendix D summarises the principles and factors that we expect the ONS to consider in reaching that sector classification.

Our analysis suggests that the ONS is most likely to classify the Energy Co. as a public sector body, although it could reach a different conclusion. This is because shortlisted options require SG to own or control the entity (see table 2). In addition, if ONS determines that the Energy Co. passes the Market Test (revenue from sale of services meets 50% or more of total operating and finance costs including depreciation), it would classify Energy Co. as a Public Corporation, rather than to General Government, with the benefit of greater year end budget flexibility. In this case the Energy Co. will be able to retain surpluses, rather than SG having to absorb changes in its operating position.

If the Energy Co. passes the Market Test, the intention to set it up as a not-for-profit entity may result in a General Government classification, depending on to what extent SG would underwrite the Energy Co. financially. However, State Aid restrictions make any such SG underwriting (explicitly or implicitly) unlikely, thus increasing the likelihood of a Public Corporation classification.

Detailed analysis of classification and budgetary impact can be found in Appendix D.

3.8 Cost benefit analysis

As well as qualitatively assessing the options, a quantitative assessment of the costs and benefits of the options can be undertaken. This is a decision support technique recommended by HM Treasury guidance.

We recommend that a formal cost benefit analysis is undertaken during the development of the OBC. This will involve refining a cost base for each strategic intervention and weighing this up against the monetary benefits that the Energy Co. could achieve. For more information on the indicative set up and operating costs of the options, please see the Financial Case.

3.9 Conclusion

The appraisal process has refined the long list of option and has identified four options that should be explored further:

Table 8 - short list of delivery vehicles

	Delivery Option	Description
1	Do nothing	SG does not pursue the creation of the Energy Co. This option forms the counterfactual for the SOC.
2	Existing socially minded	The Energy Co. would utilise an existing socially minded supplier as the future delivery structure. Existing ownership and governance arrangements may need to be reviewed to ensure appropriate SG control.

Delivery Option	Description
supplier	
3 Government owned company	<p>Creation of a new limited company (by shares or guarantee). It would be 100% owned by SG, governed by the Companies Act and would include an appointed Board of Directors. An example of a relevant entity would be Skills Development Scotland.</p> <p>SG would appoint the Chairman and Board of Directors to ensure its policy objectives and interests would be reflected in the Company Strategy and Business Plans. The Board would oversee an Executive Management Team.</p>
4 Federal model	<p>Creation of a SG incorporated “Topco” company with joint venture subsidiaries operated by individual LAs. The subsidiaries will White Label the supply of electricity and gas from the Energy Co. and bring a locally branded supply to the market. The products will be consistent across the LAs. Individual LAs will decide whether they participate in the vehicle.</p> <p>The top company would be controlled by SG (through Board representation as per a Government Company). Governance arrangements would need to be agreed for the regional subsidiaries, including delegated remit. Funding would be through SG (as shareholder) with the potential for third party funding (including through trading profits).</p>

Source: EY

The short list of options should be formally evaluated during the preparation of an OBC. This will allow SG to select a preferred delivery structure for the Energy Co.

Importantly, the appraisal process has been developed on the assumption that the Energy Co. is established to address a specific set of objectives, namely to deliver competitively priced energy which will help to alleviate fuel poverty. As a result, the appraisal criteria and shortlisting process has been carried out with this fundamental principle at its core.

If this underlying principle were to evolve, the appraisal methodology should be updated. As an illustration, SG may seek to refine proposals for the Energy Co. to adopt a more holistic set of objectives. For example, to drive economic development.

4. Commercial Case

4.1 Introduction

The purpose of the Commercial Case is to introduce and describe a number of key commercial and operating considerations for the Energy Co. In order for it to be successful and meet its objectives of providing low cost energy to consumers in a highly competitive and regulated energy retail market, it will require an operating model which allows it to source low cost energy, operate cost effectively and achieve a sustainable customer base. Developing this model to a greater level of detail, with a particular focus on cost efficiency will be a critical element of the OBC.

In the Commercial Case, we will:

- ▶ Introduce and discuss the functions of a typical energy retailer operating model
- ▶ Explore a range of potential operating models that could be adopted by the Energy Co.
- ▶ Discuss a range of considerations that must be explored and taken to a greater level of detail at the OBC stage when developing the operating model. For example the customer acquisition strategy and the proposed scale and size of the Energy Co.'s customer base
- ▶ Summarise the lessons learned from our review of comparable companies in the market
- ▶ Discuss potential commercial activities for future phases of the Energy Co.

The legal and regulatory implications of each of the operating models have not been reviewed within the SOC.

4.2 Working assumptions

The review of operating models is based on a number of assumptions, reflecting the objectives and remit of the Energy Co. These are:

- ▶ The Energy Co. will be an energy retail business, focussed on the supply of gas and electricity. In the future, however, other commercial activities may be explored, including other energy related services
- ▶ The Energy Co. could outsource specific operational functions, however this may exclude the outsourcing of customer service functions as there is a risk that this could have a detrimental impact on the quality of customer services
- ▶ For the purposes of some of the operating models, it has been assumed that the Energy Co. would be granted a gas and electricity supply licence.

The working assumptions have been explored in each of the operating models considered for the Energy Co. All of the assumptions may not be applicable depending on the operating model taken forward.

It is worth noting, with reference to both working assumptions and the contingency plans that a switching only service offering could be considered at the OBC stage, in the event that a cost efficient model to supply low cost energy cannot be found in the competitive retail market.

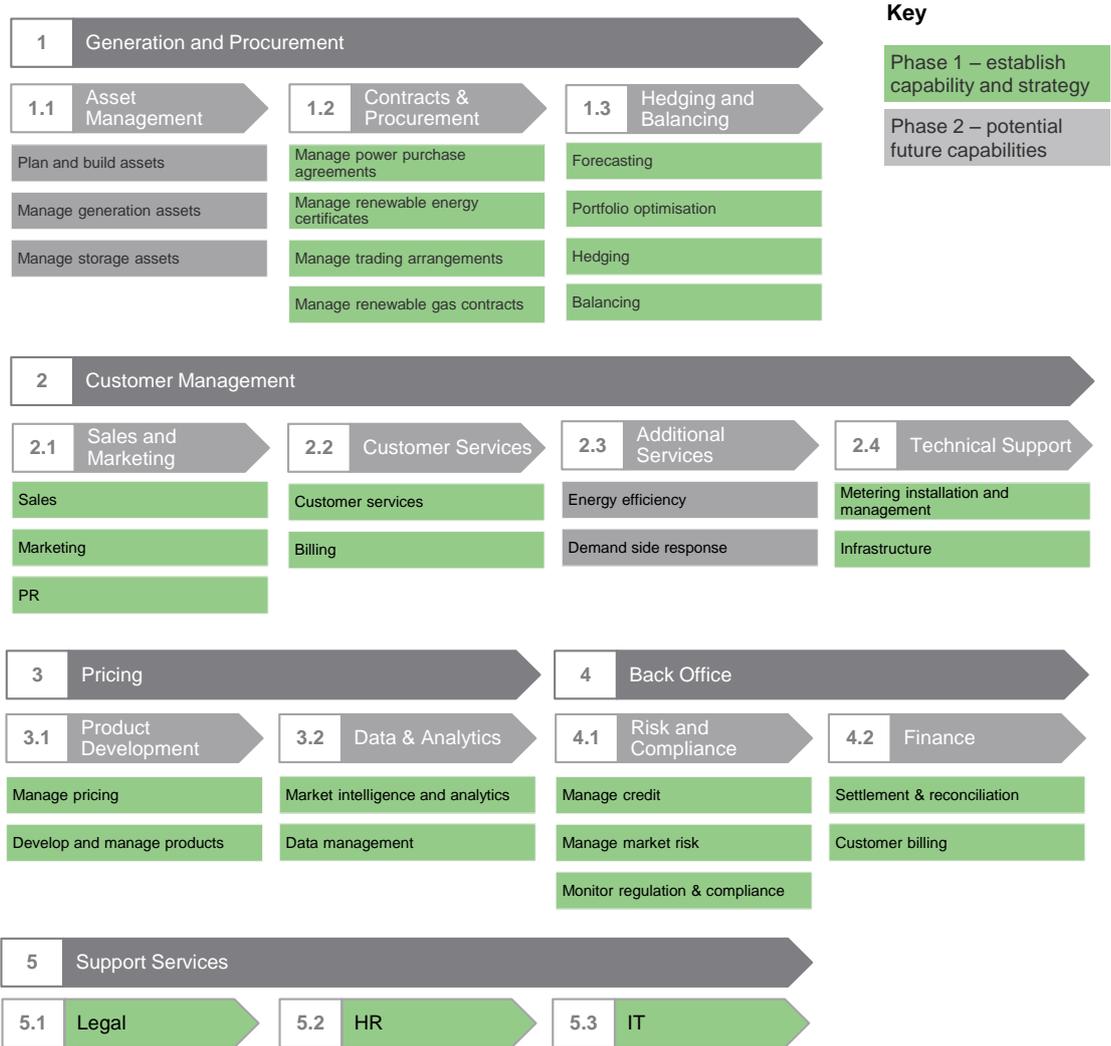
4.3 A typical energy retailer capability model

There are a number of capabilities that a typical energy retail supplier would have and these typically fall into the following main categories:

- ▶ Generation and procurement – The commercial functions of buying energy, on a hedged basis and the production of energy (including asset / production facility management)
- ▶ Customer management – Full range of customer functions including customer acquisition, customer services (help line) and technical support
- ▶ Pricing – Data and analytics based development and management of tariff offerings to energy customers
- ▶ Back office – Finance functions, risk and compliance
- ▶ Support services – other business support functions covering legal, IT and Human Resources (HR).

The graphic below illustrates a typical energy supply company capability set, including references to the Energy Co. phase 1 and phase 2 required capabilities:

Figure 8 - Typical energy capability model



Source: EY

In line with the proposed remit of the Energy Co., a Full Capability model would not require all of these functions during phase 1. It is expected that the asset management functionality, particularly around renewable energy generation, will be explored during subsequent phases.

The following section explores a number of operating models available to the Energy Co. and sets out the implications for the functions/capabilities illustrated in the figure above for each model.

4.4 Potential operating models

There are three relevant operating models for the Energy Co. to consider. These are:

- ▶ White Label model
- ▶ Full Capability and a 'Licence Lite' capability
- ▶ SG Wholesale Procurement Framework model.

These options are not mutually exclusive, as it may be appropriate to implement a less resource intensive model, for example a White Label model, before transitioning to a Full Capability model. The models are described in the following sections, highlighting the operational requirements and key cost/risk considerations for each. Appendix E sets out the capability models for each option in greater detail.

4.4.1 White Label model

Definition

Under a White Label model, the Energy Co. would procure an existing licenced supplier to provide the Energy Co. with its own nationally branded and unique products. It would not apply for, or hold, its own supply licence.

This operating model is currently used in the public sector. For example, Robin Hood Energy, an energy company and licensed supplier operated by Nottinghamshire City Council, has entered into a White Label arrangement with Leeds, Islington and Liverpool Councils.

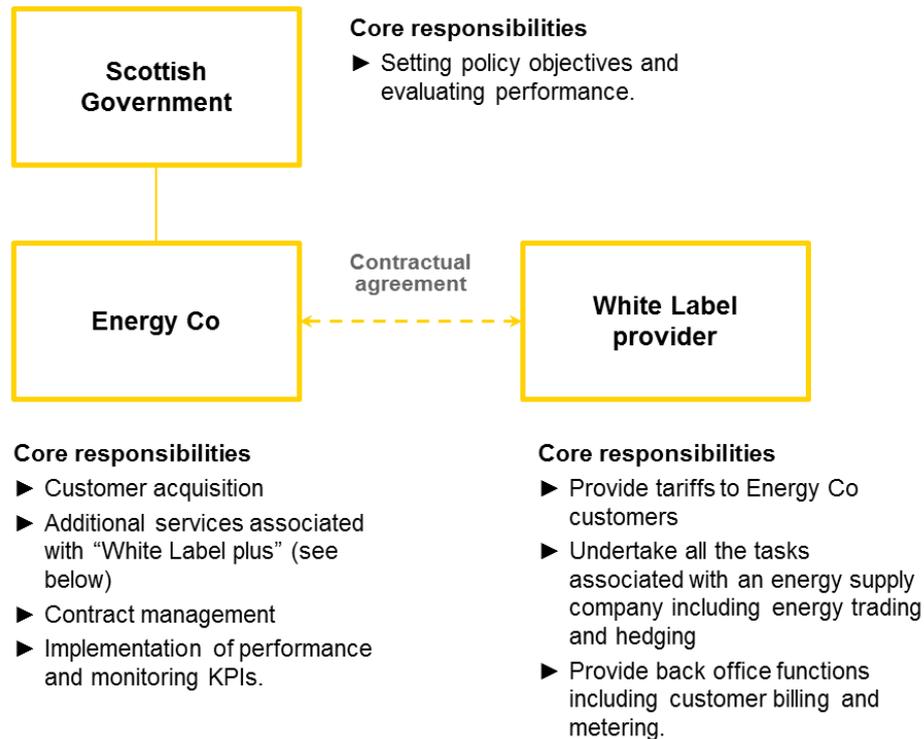
This model would allow the Energy Co. to exist either as a separate entity or an in-house SG team.

The White Label supplier often has its own core business that consists of supplying energy under its own brand name. Its White Label supply agreements are used to increase its own customer base.

Capability requirements

If the Energy Co. were to be established under a white label arrangements, its role and responsibilities would be limited. A summary of the contractual arrangements is shown overleaf:

Figure 9 - White Label arrangements



Source: EY

It is important to note, however, that standardised commercial agreements do not exist in the market. As a result, we have identified potential roles and responsibilities for both parties. In any event, the third party licenced supplier would be responsible for satisfying the licence requirements set out by the regulator, such that the roles and responsibilities of the Energy Co. would be limited.

Energy Co. may undertake the following functions:

- ▶ The customer acquisition function would be provided by the Energy Co. and in return, the Energy Co. would receive a fee from the White Label supplier for new customers it brings to the supplier
- ▶ The Energy Co. could also consider (for an additional revenue stream) providing the customer service function such as billing, metering and customer support functions. This is known as a White Label ‘plus’ service. This creates the possibility of providing greater benefits to the Energy Co.’s customers and may be considered in particular reference to those in fuel poverty and those customers who would benefit from a bespoke customer service function. However, such services would need to be negotiated with the White Label supplier
- ▶ If SG pursues a White Label or White Label ‘plus’ partnership, limited support services would be required as services such as procurement, hedging and regulatory compliance would be the responsibility of the White Label supplier

- ▶ The focus of the Energy Co. services would be customer management and the extent of this would depend on the agreed contracted services that the Energy Co. would provide on behalf of the White Label arrangement
- ▶ Under this option, the Energy Co. may also seek to incorporate a switching platform to aid the transition to the White Label supplier tariffs. This could be based on the principles already established by organisations such as Citrus Energy.

Cost and risk considerations

As the Energy Co. would not hold its own supply license, it would be restricted to the prices offered by the White Label supplier. To obtain the best prices possible for its customers, the Energy Co. would look to establish an agreement with a White Label supplier that could agree to low tariffs. The Energy Co. could use its ability to access a large customer base as a negotiating factor in obtaining competitive prices.

Under this model, the Energy Co. would not be able to control retail prices directly, however it would require substantially less working capital to provide energy and operate with reduced overheads.

It is likely that the choice of White Label partner would require a formal Official Journal of the European Union (OJEU) procurement. This is typically a 12 to 18 month process. This would allow the Energy Co. the opportunity to define the specifications and outcomes of the contract.

SG may look to procure this contract for an initial period of three to five years. This period would allow SG to review the ability of the model to make an impact on the wider policy and organisational objectives of the Energy Co.

4.4.2 Full Capability model and ‘Licence Lite’

Definition

There are two sub-options under this operating model:

- ▶ Full Capability model – The Energy Co., would become a licenced gas and electricity supplier and would be responsible for complying with the associated industry regulatory requirements
- ▶ ‘Licence Lite’- This is an option that helps new suppliers enter the electricity supply market, however it does not apply to gas supply. It allows the new supplier to partner with an existing supplier, where the partner supplier will take on responsibility for providing the capability required to comply with some of the more costly and technically challenging requirements of a supply licence. To obtain a ‘Licence Lite’ the Energy Co. would be required to enter into a commercial arrangement with a Third Party Licensed Supplier (TPLS). Under this arrangement, the TPLS would carry out the required compliance procedures. This will substantially reduce the burden on the Energy

Co. For example, compliance with the Master Registration Agreement, the Distribution Connection and Use of System Agreement, the Connection and Use of System Code and the Balancing and Settlement Code would not fall to the Energy Co. However, becoming a 'Licence Lite' supplier does not remove all of the Energy Co.'s duties as it comes with all the rights and obligations of licensed supply, except those stated.

The Energy Co. could adopt either of these models, or perhaps consider initially adopting the 'Licence Lite' model and progress to a Full Capability model. The following sections discuss each of the options, highlighting the key differences between them.

4.4.3 Capability requirements

Energy procurement and hedging

Under the Full Capability model, the Energy Co. would develop and deploy its own capability to procure and supply energy to consumers.

The Energy Co. will need to purchase energy in order to satisfy its customer demand requirements. In order to balance its supply and demand position, the Energy Co. will need to develop the capability to forecast supply and demand requirements, and be able to hedge any changes in the customer demand profile due to short term events (such as drops in temperature) and longer term events (such as changes to portfolio).

This will mean developing (or procuring) the technical capability to predict demand due to changes in market fundamentals. The energy sourced by the Energy Co., which will need to be matched to the demand forecast, can be done through several routes:

- ▶ Direct supply from the Energy Co. owned assets (viewed as a potential future phase of activity)
- ▶ (a) Power Purchase Agreements and (b) Gas Purchase Agreements with developers
- ▶ The wholesale market.

The hedging capability to secure the intended retail tariff end prices can either be built internally, or outsourced to a third party trading desk (which then trades physical wholesale energy on the Energy Co.'s behalf) according to prices and forecasts provided by the Energy Co. If this model is pursued at OBC stage, the hedging options will be further evaluated and explored.

A 'Licence Lite' option only relieves the Energy Co. of its obligation to be a direct party to a number of industry codes for electricity. The Energy Co. would still engage directly with the wholesale market and would therefore require the above procurement and hedging capabilities.

Customer management and back office support

The Energy Co. would require full customer management capabilities, including customer acquisition, services (including billing and helpline services), technical support and any additional services (with respect to the future Energy Co. services). Additionally it would require extensive back office support to maintain the regulatory reporting requirements for a Full Capability model.

Similar to the Full Capability model, the 'Licence Lite' model would require the same customer management capabilities, technical support and other back office functions such as finance, HR, IT etc. However, it would be relieved of some regulatory requirements which can be extensive as these would be contracted to the TPLS provider for a fee. The TPLS would be responsible for these and carry the associated compliance risks.

Cost and risk considerations

The operational requirements to establish the Full Capability model are significant. To comply with regulatory codes will require substantial up-front investment and ongoing resourcing. The 'Licence Lite' model would relieve the Energy Co. of some of these constraints, however, there has been a significant lack of interest from existing industry suppliers to offer this scheme so far. This is evidenced by the low number of 'License Lite' suppliers currently in the market.

Some functions may be outsourced for the purpose of cost efficiency. The Energy Co. would need to weigh up the financial and operational implications of doing this, given the risks associated with lack of direct control. For several functions, outsourcing could reduce cost (and capability requirements) for the Energy Co., however this must be balanced against the time and transaction costs required to procure such services. Additionally, given the objectives of the Energy Co. there may be the requirement to provide bespoke services (e.g. the customer service / help line) for the targeted fuel poor population.

4.4.4 SG Procurement Framework model

Definition

SG has two separate national frameworks for supplying energy to the Scottish public sector, one for gas and one for electricity. These are currently available to Central Government, Health, Local Authorities, Universities and Colleges, Third Sector and other Public Bodies.

Under this operating model, the Energy Co. would source its energy through the SG Energy Procurement Framework and effectively act as a customer acquisition agent / re-seller for the Framework suppliers. As the Framework was designed for public sector organisations rather than residential customers it would require substantial changes to allow household customers to purchase energy at the Framework price. Under this model the Energy Co. would not be a licenced energy supplier, but simply a customer acquisition agent for the Framework supplier(s). Additionally, there is a risk that the costs

for the current Public Sector customers may increase as residential customers represent a broader spread of credit risk than the current customers.

Operating requirements

Energy procurement and hedging

Under this model, the Energy Co. would enter the SG Procurement Framework agreement and sign up domestic retail customers. The intention would be that domestic consumers could access the same wholesale energy charges (subject to limitations on metering) as others on the Framework. Traders in Scottish Procurement would purchase energy on behalf of the customers according to an established Risk Management (Hedging) Strategy.

As the Framework has been designed for public sector organisations rather than domestic users, a review of the hedging strategy for the Framework would be required to incorporate the addition of Scottish non-domestic customers.

Customer management and back office support

The Framework has been designed for the supply of energy to Public Bodies as the needs of consumers would differ to this and the service offering would require significant changes to adapt to this. There would be a requirement to expand the current team managing contracts, additionally a range of different skills would be necessary to effectively manage the different customer service offerings.

As the gas and electricity contracts are tendered separately every 4 to 7 years, consumers would face changing one or another supplier every 2 to 4 years and at any one time may have different suppliers for gas and electricity. This would likely add to the requirements for the customer service team and may be something that is resisted by residential customers.

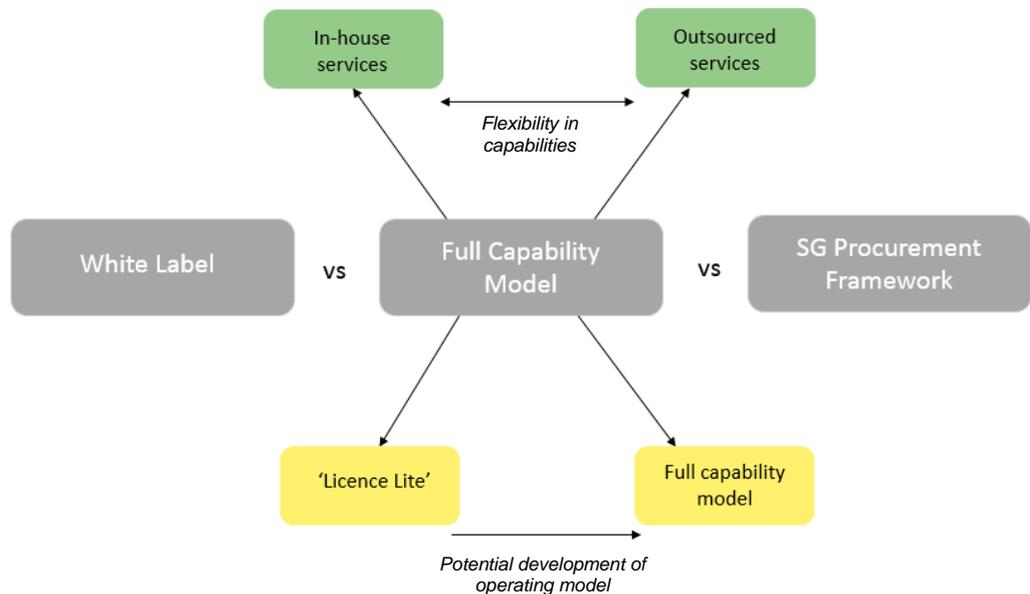
Cost and risk considerations

There are a number of challenges with this option. As previously noted there are currently two national Frameworks, one for gas and one for electricity. The changes required to the contracts may not comply with EU regulations, necessitating a re-tender of the national contracts. The electricity contract is currently being re-tendered (submissions are currently being evaluated) and the gas tender will commence late 2018. As the Frameworks are intended for the supply of energy for Public Bodies, including residential customers would require more complex customer requirements than those that are currently provided for. Furthermore, adding residential customers changes the spread of credit risk in the Frameworks which currently have an attractive, reliable customer base. As a result of these changes, Public Bodies may reconsider the national Framework, opting for what may be more attractive rates elsewhere.

4.5 Summary of operating models

Three different operating models have been proposed for the Energy Co. and are illustrated below. The OBC will continue to develop and progress the review of these options. The operating models are not mutually exclusive; the Energy Co. would have the opportunity to select one model and progress to another, for example commence with a White Label model, with the objective to move to a 'Licence Lite' or Full Capability model in the future. The Energy Co. would have the opportunity to outsource some its functions, however any benefits from doing this would have to be considered against the time and transaction costs required to procure such services, as well as the loss of direct control for Energy Co.

Figure 10 - Operating Models explored in SOC



Source: EY

To summarise the discussion of the operating models, the table below highlights the key advantages and disadvantages for each.

Table 9 - Advantages /Disadvantages of Operating Models

Operating Model	Advantages	Disadvantages
White Label	<ul style="list-style-type: none"> ▶ The Energy Co. would not require its own code and supply licence ▶ Low set up cost and administrative burden ▶ Build up brand recognition without being exposed to the risks of the wholesale and hedging markets 	<ul style="list-style-type: none"> ▶ The Energy Co. would not be independent of the supplier ▶ Potential reputational risk due to any negative actions undertaken by the White Label supplier ▶ Restrictions on control of retail prices. As the Energy Co. will not have a supply licence it will lack control over the price

Operating Model	Advantages	Disadvantages
	<ul style="list-style-type: none"> ▶ Ability to enter the market quickly (subject to procurement) ▶ The White Label supplier bears the procurement and trading risk ▶ Limited numbers of employees required. 	<p>that the White Label supplier provides</p> <ul style="list-style-type: none"> ▶ Challenging to drive significant customer value given the Energy Co.'s limited role; would rely heavily on negotiations of contract with partner ▶ Delivery risk, given substantial reliance on the White Label supplier and complex procurement (including desire not to contract with e.g. 'Big 6').
Full Capability	<ul style="list-style-type: none"> ▶ Greater flexibility around wholesale energy purchasing strategy - potential to achieve "best price" ▶ Perception in market as being "independent" and secure could lead to increased uptake of tariffs due to improved trust 	<ul style="list-style-type: none"> ▶ Additional cost and skill development required to create capability ▶ Trading and billing system, and external facing customer portal will need to be developed or sourced ▶ Full capability development will be time consuming
'Licence Lite'	<ul style="list-style-type: none"> ▶ Flexibility to create own tariff structures to allow for greatest benefit to customers ▶ In addition to the above, the Energy Co. is relieved of extensive regulatory requirements, resulting in cost and resource savings. 	<ul style="list-style-type: none"> ▶ A TPLS provider is required for the Energy Co. to have the 'Licence Lite' granted. There is a lack of interest from existing industry suppliers to offer this scheme.
SG Framework	<ul style="list-style-type: none"> ▶ Potential to leverage the overall scale of SG energy purchasing to achieve favourable prices for household customers. 	<ul style="list-style-type: none"> ▶ Considerable complexity, tender specifications would need to be substantially altered whilst tender is live, and the addition of the Energy Co. may affect prices paid by current Framework customers ▶ Perception issues given very limited the Energy Co. role

Operating Model Advantages

Disadvantages

- ▶ The Energy Co. would be tied to one supplier for the duration of the agreement.

Source: EY

Although the SG Procurement Framework model could potentially allow domestic consumers to access low cost energy, in terms of complexity and ability to execute, this operating model presents several fundamental challenges and on this basis should not be considered at the next stages.

The operating models identified provide an overview of the models that could be adopted by the Energy Co., which could all be developed under each of the short-listed delivery structures identified in the Socio-Economic Case. Two of these delivery structures can be addressed specifically regarding the respective operating models, namely the Existing Supplier and “Federal model”.

4.5.1 Existing supplier

Under this delivery structure, through an intervention by SG, the Energy Co. would be able to utilise the existing supplier’s capabilities, infrastructure and resources, including its customer and back office functions. It could also look to amend and improve some of the existing trading and hedging capabilities. As a result, this option would effectively be a variation of the Full Capability model given the existence of the energy retail supply company. Subject to review, it is possible that certain functions of the existing suppliers could be out-sourced in the interest of cost efficiency.

4.5.2 Federal structure

The Federal delivery structure is based on the premise that the customer service function (including customer acquisition and customer service) could be provided at the LA subsidiary level. This may allow the LA to tailor their interaction with local customers and meet the specific needs of their community. The remainder of the capabilities and services could be provided at SG at a parent company level.

This could be achieved through either of the following operating models:

- ▶ **White Label:** the Energy Co. (Parent company) would contract with a licenced supplier. Customer acquisition and customer services (if the White Model ‘Plus’ model was selected) would be provided by the respective LA subsidiary companies. There would be minimal intervention from the Energy Co.
- ▶ **Full Capability:** the Energy Co. (Parent company) would be a licenced energy supplier. It would be responsible for the procurement and supply of energy. The LA would provide the back office functions such as customer support, compliance and other services such as HR, Finance, Legal.

4.6 Other operational considerations

We have identified additional considerations which will be critical components of any operating model. These are described in the following sub sections.

4.6.1 Customer acquisition strategy

The customer acquisition strategy of the Energy Co. will need to be developed substantially during the OBC stage. Specifically, the following areas will need to be explored from a cost, risk, capability and time to implement perspective:

- ▶ The customer target and acquisition strategy, given the Scottish non-switching, prepayment and fuel poor segments of the customer base
- ▶ Routes to customer acquisition and costs: agents such as 'Moneysupermarket' are popular but costly methods to acquire new customers. Social media has also proved to be a useful platform for attracting new customers. Even though this is a cheaper method, the volume of promotion required to reach the correct customers is significant. As a result agents such as 'Moneysupermarket' are often the most effective method
- ▶ Current smart technology roll-out and timetable, as well as other switching technology providers (e.g. Flipper, a privately owned company that contracts with household customers and provides a for-profit switching service).

4.6.2 Minimum size and scale

The Energy Co.'s commercial and financial position will be underpinned by a number of operating assumptions. These includes the proposed scale of operations and the number of customers targeted by the business and will need to be considered in the context of:

- ▶ Customer meter thresholds for smart technology provision and green levy (200,000 and 500,000 meter points, respectively). There will be significant operational and financial impacts of implementing the requirements associated with the Smart Meter technology and complying with the green levy
- ▶ The Energy Co. must consider financial benefits driven by economies of scale versus the limited size of the Scottish market (including market share implications)
- ▶ Profitability according to customer characteristics (e.g. potential cost / profitability of acquiring and servicing the target customer segment(s)).
- ▶ The scale of business impacting on the choice of delivery model. A White Label model would not require a significant customer base to cover the reduced overheads associated with the model. This analysis will form an integral part of the financial modelling at OBC.

- ▶ The size and scale of Energy Co. will also need to be considered in the context of the number of householders in Scotland that are fuel poor. This is discussed further in the Financial Case.

4.6.3 Digital landscape

Suppliers are currently increasing their investment in digital offerings to drive down operating costs. For the Energy Co. their target consumers are those living in fuel poverty, although an innovative digital service could reduce operating costs it may be counterproductive as engagement and interaction with this audience is key to the success of the Energy Co. With an evolving market, digital services will be an area that the Energy Co. will be required to consider to remain cost competitive. The OBC will consider the best solutions to maximise on this whilst still targeting the primary market of fuel poor consumers.

4.7 Summary of precedent companies

We have reviewed a sample of companies with similar objectives to that of the Energy Co. e.g. focusing on renewable energy sources, attempting to alleviate fuel poverty and providing better customer service and engagement.

The analysis performed has highlighted the following key themes:

- ▶ It appears that based on this limited sample, established energy companies who both produce and procure energy as well as focus on environmental sustainability are more likely to be profitable. This is exemplified by Ecotricity and Good Energy
- ▶ With the exception of Aberdeen Heat and Power Company Limited, which is owned by Aberdeen City Council, the profitable companies are all privately owned
- ▶ The size of the energy companies also appears to have an impact on its profitability, as larger companies with more than 500,000 customers have been less profitable. This may be partly due to additional costs relating to the Green Levy and smart meter installation which companies with over 500,000 customer meters must cover.³⁵

4.8 Future commercial and operational considerations

SG may also wish to consider other methods of expanding and improving the Energy Co.'s remit. These should be in keeping with the vision and objectives of the organisation, but may also be used to improve the organisation's longer term financial viability.

4.8.1 Expand the range of services offered by the Energy Co.

The Strategic Case identifies a range of factors that contribute to fuel poverty in Scotland, including the prominence of prepayment meters and low quality housing stock.

³⁵ Companies with a customer base of over 200k are required to install smart meters.

The Energy Co. may look to expand its operational strategy by entering the energy efficiency market. This would involve providing assistance to customers to minimise their energy bills and reducing their consumption of energy. Through this proposition and subject to further work, the Energy Co. could potentially be rewarded on a gain-share basis (based on reductions in household energy bills) as a result of the Energy Co. efficiency interventions (e.g. improved insulation). This could be implemented in conjunction with any available government grants. The Energy Co. could then enter into a long term arrangement (e.g. 5 years) where the customer pays a fixed yearly fee for their energy (up to a maximum cap) through which the equipment provider can earn back the cost of installing the energy saving measures. The customer would reduce its energy costs, fix its energy bill and the quality of the housing stock would be improved over time.

4.8.2 Renewable energy investment/generation

Consideration will need to be given at the OBC stage with respect to the Energy Co.'s potential participation in energy generation (for later Phases), either through long-term purchase power agreements (PPA's) or direct ownership / participation in generation assets.

4.9 Conclusion

The Commercial Case has reviewed the following operating models for the Energy Co. to consider:

- ▶ White Label model
- ▶ Full Capability and a 'Licence Lite' capability

The analysis indicates that the White Label and the Full Capability Models are the options that should be carried forward to the OBC stage. Both operating models have the potential to deliver the objectives set by the Energy Co. Although the SG Procurement Framework model could potentially allow domestic consumers to access low cost energy, in terms of complexity and ability to execute, this operating model presents several fundamental challenges and on this basis should not be considered at the next stages.

5. Financial Case

5.1 Introduction

The purpose of the Financial Case is to explore the Energy Co.'s fundamental financial principles and introduce the likely magnitude of the potential set up and operating costs. It does not, however, contain fully costed operating models for the Energy Co. This is appropriate given the early stage of development of the project, the complexity of the proposal and the need to develop a preferred underlying operating and commercial model. This is also consistent with the HM Treasury Green Book guidance for the level of analysis required at the SOC stage.

Nevertheless, the Financial Case does consider the high level impact of establishing an Energy Co. based on its core operating principles. It also discusses what impact the implementation would have on SG's budget and accounts and includes an examination of the relevant tax considerations. In addition, it describes how the Financial Case will be developed to a greater level of detail at the OBC stage.

5.2 Assumptions

The analysis is based on the following set of assumptions:

- ▶ The preferred delivery and operating models have not been selected and will impact the financial position for the Energy Co.
- ▶ The Energy Co. will provide a return on the funding from SG once it generates a surplus, with subsequent surpluses being re-invested back into the Energy Co. in order to comply with the not-for-profit principle
- ▶ The Energy Co.'s activities and financial arrangements will comply with State Aid restrictions
- ▶ The indicative set up and operating costs do not represent the final costs required. For example, the set-up costs will be affected by factors such as the Energy Co.'s growth ambition, staffing level, service offering and degree of outsourcing.

5.3 Funding requirements

The establishment and running costs of the Energy Co. will be funded from the Scottish Budget. The costs involved in setting up the Energy Co. will be scored as Capital and Resource DEL. The split will broadly be determined by the nature of the costs.

Regardless of the chosen model, it is expected that the funding requirement to incorporate the Energy Co., commence trading and successfully acquire and deliver services to customers will be substantial.

Determining a possible funding requirement for the Energy Co. requires detailed analysis. This includes refining the financial assumptions in this SOC, market testing the operating models and developing a set of benchmarks based on a more articulated business plan for the Energy Co. This analysis will be carried out at the OBC stage.

5.4 Costings and affordability

5.4.1 Overview

This section explores the cost implications of establishing an Energy Co. based on its core principles set out in this SOC. SG investment will need to be sufficient to cover project costs, set up costs for the Energy Co. as well as working capital to cover operating costs up until the Energy Co. starts generating sufficient cash from revenue to cover its costs.

The costs are dependent on a number of key operational considerations. This includes, but is not limited to, the capabilities and functions of the Energy Co., the number of employees, the location and volume of office space required, business infrastructure including IT systems and equipment.

At the SOC stage, our review of set up and operating costs has been based on a top down review of existing relevant market participants.

We have also provided a qualitative review of how these costs may differ based on the proposed operating models, including:

- ▶ White Label model
- ▶ Full Capability model and a 'Licence Lite' capability model.

The analysis does not review the SG procurement model identified in the Commercial Case.

5.4.2 Scale of customer base

A key assumption underpinning the cost base and future affordability analysis will be the scale of customers an Energy Co. is able to attract and retain.

The Strategic Case identifies that in 2016, 8% (183,000) of customers in Scotland were defined as extremely fuel poor. For the purposes of this SOC, we have assumed that the Energy Co. would therefore seek to, at a minimum, target a customer base of this magnitude.

The review of set up and operating costs are based on a series of data points from existing relevant market participants. We have narrowed our population to review dual fuel energy suppliers, who are not vertically integrated and cater for between 100,000 and 250,000 customers. This "top down" approach provides a basis to explore the cost base that the Energy Co. is likely to have.

This assumption may not, however, accurately reflect Energy Co.'s future trading ambitions. Given Energy Co.'s intended purpose in the Scottish market, its expected customer base may be larger.

5.4.3 Energy Co. set up costs

There are a number of one off set up costs that the Energy Co. will likely need to incur. These will vary depending on the ultimate delivery vehicle and operating model, but would include:

- ▶ Project costs
- ▶ Corporate governance
- ▶ Employee recruitment
- ▶ Premises and infrastructure
- ▶ Initial marketing, branding and communication strategy
- ▶ Contingency.

The review of the relevant precedent companies in the market and publicly available information has identified the following indicative ranges of set up costs.

Table 10 - indicative set up costs

Model	Range of costs (£m)
White label	0.5 – 1.0
Full capability	1.5 – 3.5

Source: EY

The analysis indicates that the Full Capability model will require significantly more set up costs than the White Label model, with costs of £0.5m – £1.0m and £1.5m - £3.5m respectively. Detailed affordability analysis will be developed at the OBC stage.

These costs do not represent the peak funding requirement of the Energy Co., which would represent the cumulative net costs to the Energy Co. over the start-up phase.

5.4.4 Energy Co. operating costs

The Energy Co.'s operating costs, as with the set up costs, are likely to vary significantly depending on the final selection of delivery vehicle and operating model. However, the key costs are likely to include:

- ▶ Ongoing employee and management costs
- ▶ Premises and infrastructure costs
- ▶ Support services including HR, IT and legal
- ▶ Customer acquisition and management (if applicable)
- ▶ Energy wholesale and procurement (if applicable).

The indicative cost analysis is based on entities which operate under the Full Capability model. This model would have a significantly higher cost base (and funding requirements for SG) than a White Label model. Given the bespoke

nature of the White Label arrangements and variety of these in the market, standard costs do not exist. The precedent companies used in the analysis are shown below.

Table 11 - precedent companies operating costs

Precedent Company	Number of Customers	Operating Costs (£m)
Company A	180,000	4.3
Company B	100,000	2.8
Company C	110,000	9.0

Source: EY

The analysis indicates that the Full Capability model will have total operating costs of £2.8m - £9.0m. This analysis is based on publicly available information. The underlying operating conditions and business models for each company will vary and therefore the range represents an appropriate estimation of expected future costs.

5.4.5 Affordability analysis

The affordability analysis of the Energy Co. will be undertaken at the OBC stage when a comprehensive financial review of the preferred commercial position can be undertaken. It is important to note, however, that this will be based on the net cashflow position. This will incorporate all the relevant trading and financing assumptions, as well as the costs outlined above. It is also possible that the Energy Co. may operate with a net annual trading deficit over several years before sufficient scale is obtained to allow it to generate an ongoing surplus.

5.5 Operating models considerations

We have also undertaken a qualitative review of the likely financial implications of the White Label and Full Capability model and how they differ.

5.5.1 White Label model

The financial implications of establishing a White Label model will likely include:

Set up costs

- ▶ Costs relating to the procurement, negotiation and agreement of terms with the licenced supply partner. The negotiations will include the cost of senior internal SG resource and the cost of hiring professional advisors to support the process. The scale of these costs will be dependent on the length of time it takes to finalise the terms
- ▶ A White Label supply partner may require upfront investment in a marketing function to attract customers. As a result, the Energy Co. would need to recruit sales and marketing staff and meet some upfront advertising cost

- ▶ The Energy Co. may consider offering additional services to customer acquisition such as customer support or smart meter installation. If this were the case, the Energy Co. would incur additional costs such as hiring extra staff and purchasing a customer relationship management (CRM) system

Operating costs and working capital

- ▶ The Energy Co. will incur ongoing operating costs, salaries and customer acquisition costs. Costs will depend on the services that the Energy Co. will offer, but as a minimum, it will require a management team and sales and marketing personnel. Customer acquisition costs will depend on the growth ambitions of the Energy Co

Operating income

- ▶ Under the White Label model, the Energy Co.'s primary revenue streams will be based on either customer acquisition or retention payments. An acquisition payment will involve Energy Co. receiving a single payment from its supply partner for each customer it signs up. A retention payment involves the Energy Co. receiving an annual payment for each customer that remains with the Energy Co. after the initial sign up period has passed.

5.5.2 Full Capability model and 'Licence Lite'

The Full Capability or 'Licence Lite' models are likely to require a larger cost base than the White Label model. The financial implications of these models may include:

Set up costs

- ▶ The Energy Co. will need IT systems to manage customer data, central market administrators as well as its regulatory reporting requirements. This could be developed internally, however, it is common for new entrants to procure an off the shelf system known as a 'supplier in a box' where a specialist vendor will develop the relevant systems that comply with the core industry codes. The cost of a 'supplier in a box' can be substantial, and will include an initial purchase and configuration fee as well as an ongoing service charge. Notwithstanding the cost, buying the service is likely to be cost efficient (rather than building the capability) and relatively low risk
- ▶ The Energy Co. will also require considerable commercial and energy sector capability, likely through a combination of internal and external support. Permanent staff will be required to fulfil regulatory and licencing obligations, as well as hedging, trading and customer service functions. Some of these resources may be outsourced but the Energy Co. would need to weigh up the cost benefit against delivery and reputational risks. The staff cost would be reduced under a 'Licence Lite' model, as the Energy Co. would have fewer compliance obligations

- ▶ The Energy Co. would require additional funding for balancing and settlement, network charges with wholesale trading partners and under renewable schemes. As a new entrant the Energy Co. could face considerable credit requirements. The industry regulations allow for some provision of credit through a parent company guarantee, but it is unlikely that an SG Guarantee would be feasible, given State Aid restrictions.

Operating costs

- ▶ A Full Capability model will incur significant staff and customer acquisition costs. These could, however, be reduced through the use of a 'Licence Lite' model.
- ▶ The Energy Co. will purchase energy from the wholesale market, directly from energy generators using PPA's or a combination of the two which, depending on its hedging strategy will require a significant level of working capital.

Operating income

- ▶ In contrast to a White Label company, under the Full Capability model the Energy Co. will have direct contracts with its customers. As such it will earn income from charging customers a set tariff for the supply of energy.

5.6 Working capital considerations

Energy market participants, who fall into the Full Capability model category, have traditionally required substantial working capital commitments. This is required to support the build-up of customers and the associated operating costs that are typical of this model. The working capital requirements would be higher if customer uptake is slow and initial customer acquisition targets are not met.

To illustrate this point, we have calculated Energy Co.'s indicative working capital requirement over a five year period. This assumes that the operating costs represent the net annual trading deficit. Taking the midpoint of our costs range, £5.9m (£2.8m - £9m), the five year cumulative requirement could equate to £29.5m. This demonstrates the potential magnitude of the working capital requirements.

The working capital requirements for a White Label provider are expected to be lower than the Full Capability model given the reduced capability requirements.

We therefore recommend that, subject to the preferred operating model being finalised, detailed cash flow analysis is undertaken to review the short to medium term cash flow requirements for the Energy Co. This should include sensitivity analysis to account for varying levels of customer acquisition.

5.7 Government accounting and budget considerations

In the Socio-economic Case, we identified that ONS is most likely to classify the Energy Co. as a public corporation. This is because the delivery options

that were short listed require SG ownership and hence control, and the expectation that Energy Co. will be financially self-sufficient means that it will meet the Market Test (revenues from sale of services meet more than 50% of Energy Co.'s total operating and finance costs including depreciation).

Appendix D summarises the principles and factors that we expect ONS to consider in reaching that sector classification.

This classification, however, is for ONS to determine and its view may differ. If ONS does classify the Energy Co. as a public corporation, the Energy Co. would be able to retain year end surpluses. It also means that SG would score against the Revenue Departmental Expenditure Limit (R-DEL) any financial assistance it pays to the Energy Co., less any dividend income it receives.

Finally, under HM Treasury's Consolidated Budgeting Guidance (CBG) Section 3.14 states that Government bodies budget for financial investments in the same way as spending to acquire fixed assets; this suggests that an investment in equity will generate a Capital Departmental Expenditure Limit (C-DEL) impact equal to the investment's cost. In addition, CBG Section 1.117 states that lending to public corporations also scores against C-DEL.

These principles therefore suggest that there is no difference between C-DEL and R-DEL impacts of a SG investment in, or a loan to, the Energy Co.; this is because in both cases the SG funding results in it acquiring an asset.

5.8 State Aid considerations

The Energy Co. will need to ensure that it is compliant with State Aid rules. State Aid restrictions would be breached if it were determined that SG were providing assistance to the Energy Co. that unfairly distorted competition. Such assistance may take many forms and could include grants, loans, tax breaks or financial guarantees.

The State Aid rules were established to determine where aid can be given and under which circumstances. In order to determine if State Aid rules apply, there are a number of tests that must be considered. These include:

- ▶ Determining whether an intervention by SG or through SG resources takes place
- ▶ The intervention gives the Energy Co. an advantage on a selective basis
- ▶ Competition has or may be distorted
- ▶ The intervention is likely to affect trade between Member States.

Exemptions exist, including an exemption if aid falls within the de minimus limits of €200,000 over three years.

In order to demonstrate State aid compliance, SG will need to ensure that any public funding to the Energy Co. complies with the Market Economy Investor Principles (MEIP). This ensures that SG's actions as a funder would be compared with those of a normal market operator.

This review assumes that, post Brexit, State Aid (or equivalent rules) will continue to be applied to any aid provided by SG.

During the development of the OBC, the State Aid considerations will be considered as the commercial and financial implications of the Energy Co. are developed.

5.9 Tax considerations

We have undertaken a high level review of the possible tax implications of operating the Energy Co. under the delivery structures and operating models identified in earlier sections. The key findings are presented below, with more detailed analysis in Appendix G.

5.9.1 Direct Tax

- ▶ Under any of the shortlisted options, direct tax charges will arise once the entity becomes profitable, unless the entity/group is established with a charitable purpose
- ▶ Start-up losses in the initial years of operation will be available for carry forward to set off against profits arising in future years. However, loss utilisation will be restricted to 50% in years where profits exceed £5m per annum, resulting in tax becoming payable sooner
- ▶ Capital expenditure and debt funding may provide tax relief to offset against profits arising in the Energy Co.
- ▶ If the Energy Co. were to involve multiple group companies (including Joint Venture (JV) entities), complex shareholding structures may reduce the tax efficiency of the group where losses and profits arise in different JV entities.

5.9.2 VAT

- ▶ The choice of legal entity should not significantly impact the VAT position as the supply of power and electricity is a business activity for VAT purposes
- ▶ Energy Co. will be required to register for VAT and it will need to account for VAT at the appropriate rate on the supplies of gas and electricity to its customers
- ▶ The VAT liabilities to be applied to the Energy Co.'s supplies will be dependent on the type of customer and the quantity of gas and electricity supplied

- ▶ The wholesale purchases of gas and electricity are likely to be subject to the UK domestic reverse charge. This means that no VAT will be incurred on the purchases of gas and electricity, however the Energy Co. will be required to self-account for VAT through its VAT return using the reverse charge procedure
- ▶ Consideration should also be given to the VAT implications associated with the Energy Co.'s non mainstream transactions, including the provision of any management charges and support services provided by SG.

5.10 Financial Case at OBC stage

The Financial Case will need to be developed to a considerable level of detail at the OBC stage. The following summarises the ways in which this work will take place:

- ▶ **Funding requirements:** This will be developed further through a) analysis and recommendation of desired operating model, b) detailed cost and funding bench-marking of relevant case studies, c) market engagement where relevant (e.g. potential White Label partners)
- ▶ **Accounting and budgetary impact:** Will be developed through interactively working through the delivery vehicles and operating models to a greater level of detail, based on pros and cons to evolve and refine the models
- ▶ **Tax:** This will be developed further (and interactively) based on a) choice of delivery structure and b) more detailed development of the potential operating models.

5.11 Conclusion

Based on our preliminary analysis the following key points have been identified in the Financial Case:

- ▶ The set up costs for the Energy Co. could be in the range of £0.5m - £3.5m. The actual figure will depend on the chosen operating model and the growth ambitions for the Energy Co. and several other variables
- ▶ The year one operating costs are likely to be substantial, especially if the Energy Co. is operated as a Full Capability supplier. Based on similar precedent companies the annual operating cost could be in the region of £2.8m - £9.0m. The peak funding requirement could however, be higher than this given the Energy Co. may trade at a deficit for a considerable period. Under the White Label model the operating costs would be lower given that several core functions would be provided by the partner company

- ▶ The total funding requirement would be significantly lower for a White Label model. However, due to the heavy reliance on the White Label partner, the Energy Co. would have less flexibility and control. In addition, given the partnering arrangement, the Energy Co. revenues would be lower than under the Full Capability model. As such a detailed cost benefit analysis will need to be performed at the OBC stage
- ▶ The initial classification consideration suggests that (regardless of operating model) SG would budget for its investment in the Energy Co. as if it is acquiring a long-term asset. This would apply whether the investment is equity or debt
- ▶ An in-depth review of the Energy Co.'s tax position will be undertaken alongside further work on the delivery structure and operating model at the OBC stage.

6. Management Case

6.1 Introduction

The purpose of this Management Case is to outline the next steps for developing and implementing the programme for the Energy Co.

The Management Case will review:

- ▶ The programme and project management plans
- ▶ The governance structure
- ▶ Risk register
- ▶ Contingency plans.

6.2 Programme and project management plans

For the purposes of the SOC, the following indicative programme has been established. This will be updated as the programme progresses. The likely outputs are:

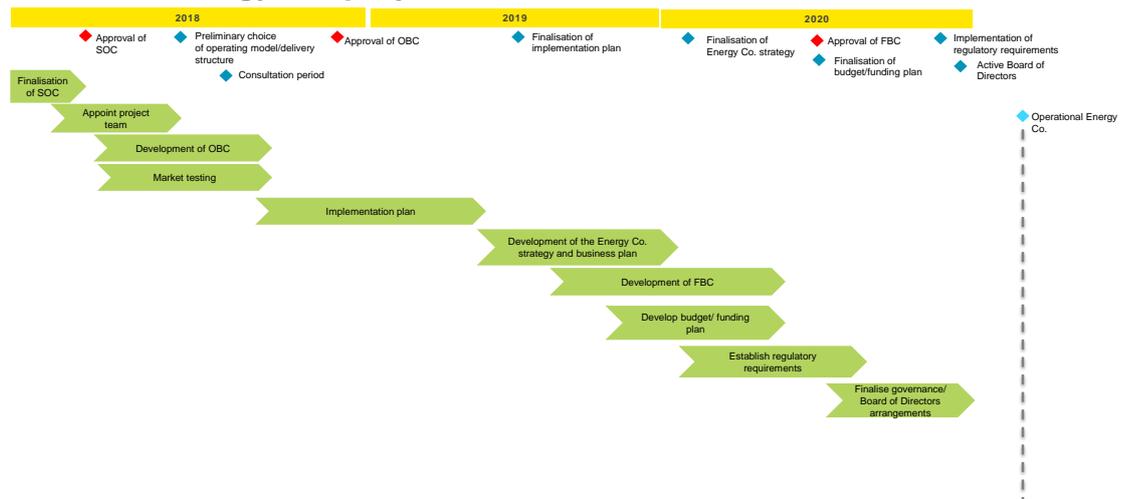
- ▶ A project team will be appointed in early 2018 to develop and manage the programme
- ▶ The OBC will be developed during 2018 and approved at the beginning of 2019. During this time extensive market testing will be performed to test assumptions made within the SOC and will build on the initial analysis to inform recommendations. The OBC will confirm the operating model and delivery structure for the Energy Co.
- ▶ In the final months of 2018, there will be a consultation period for approximately 12 weeks. The consultation will provide a range of stakeholders the opportunity to discuss the Energy Co. with the management team. Stakeholders will include SG, consumers, existing service providers, Local Authorities and regulatory bodies
- ▶ Following the development of the OBC (subject to approval in early 2019) and the consultation period, an implementation plan will be established as the operating model and delivery structure for the Energy Co. will have been agreed. The implementation plan should consider the following tasks:
 - ▶ The procurement process required for the selected option. For example the White Label option will require the procurement of a White Label supplier, the 'Licence Lite' requires a TPLS to be identified. The lead times and key activities to progress these processes will be built into the implementation plan
 - ▶ The implementation plan should consider the extent of the operating requirements, for example if there is any existing

capability within the public sector that the Energy Co. could use and the plans to expand on any areas which are not developed

- ▶ The process to establish the selected delivery structure and the associated timeline for the set-up of the Energy Co.
- ▶ From 2019 to 2020, the main areas of focus will be to develop the FBC. This will provide comprehensive evidence against each of the five cases and will support the final decision whether to proceed with the Energy Co.
- ▶ Alongside the FBC a business plan and budget for the Energy Co. will be established. The Energy Co. will need to set objectives and key performance indicators in line with its intended policy purposes. This will provide performance benchmarks for management and provide a basis of accountability for stakeholders
- ▶ The Energy Co. will require significant financial support in the early years. The FBC will establish the expected cash flow for the Energy Co. and the funding plan will be developed on that basis
- ▶ Subject to approval of the FBC (mid 2020), the regulatory requirements to allow the Energy Co. to operate will be established. Additionally, the executive team to manage the Energy Co. will be appointed and the governance structure finalised
- ▶ The intention is to have the Energy Co. operational by March 2021.

The timeline is presented below.

Table 12 - Energy Co. project timeline

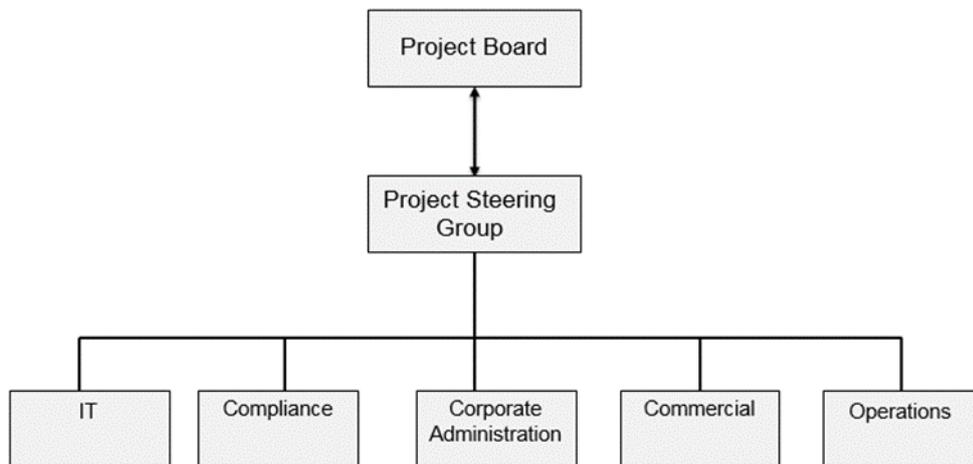


Source: EY

6.3 Governance structure

The following governance structure has been proposed for the Energy Co.

Figure 11 - Proposed Governance structure



Source: Scottish Government

This structure will be reviewed and revised as the programme of the Energy Co. develops. The current roles and responsibilities are:

- ▶ The Project Board will be responsible for the overall governance of the Energy Co. In order to develop the project effectively SG will need to bring one or more select senior energy sector experts onto the Project Board, who have the relevant experience, ideally both from a private sector energy supply company perspective and from a SG project governance perspective
- ▶ The Project Steering Group will manage the project and coordinate information from the work streams to the Project Board and vice versa
- ▶ The work streams currently represent the initial areas that will be required to operate the Energy Co., however the specific activities within these will be dependent on the operating model selected for delivery. Work streams and their specific roles will be refined at the OBC stage.

6.4 Risk register

The SG, in line with the development of the Energy Co., has constructed a high level risk register which captures the top ten risks identified within the SOC. Establishing a risk register is the process of identifying and quantifying (where possible) risks associated with the project. The risk register should include a description of any mitigating actions for the risks.

For the purposes of this SOC, risks have been qualitatively assessed and as the programme progresses risks will be reviewed, updated and quantified where possible. The risk register identifies a range of risks, all of which are likely to have an adverse impact on the successful implementation of the

Energy Co. unless appropriately mitigated. Risk owners will be assigned to each risk and an updated version of the risk register should be completed for the OBC. The initial risk register has been included at Appendix F.

6.5 Contingency plans

Should Scottish Ministers decide that strategic intervention is not required in the form of an Energy Co., a contingency plan should be adopted as an alternative solution. The contingency plan should look to set similar objectives to that of the Energy Co. in supporting consumers and helping to alleviate poverty.

At this stage of the programme, detailed contingency plans have not been made, however, alternative plans with these strategic aims as their focus, will be further developed and considered within an options appraisal in the OBC.

6.6 Conclusion and next steps

The Management Case has considered the initial steps required to progress the programme for the Energy Co. As the project develops the OBC and FBC will detail further the plans to successfully implement the Energy Co. Below we have highlighted the key next steps which should be undertaken within the OBC;

Socio- economic Case

- ▶ Confirm the delivery structure for the Energy Co. and the approach to implementing the selected structure.

Commercial Case

- ▶ Confirm the preferred operating model for the Energy Co. and the approach to implementing the preferred model including, procurement strategy and necessary supply licences.

Financial Case

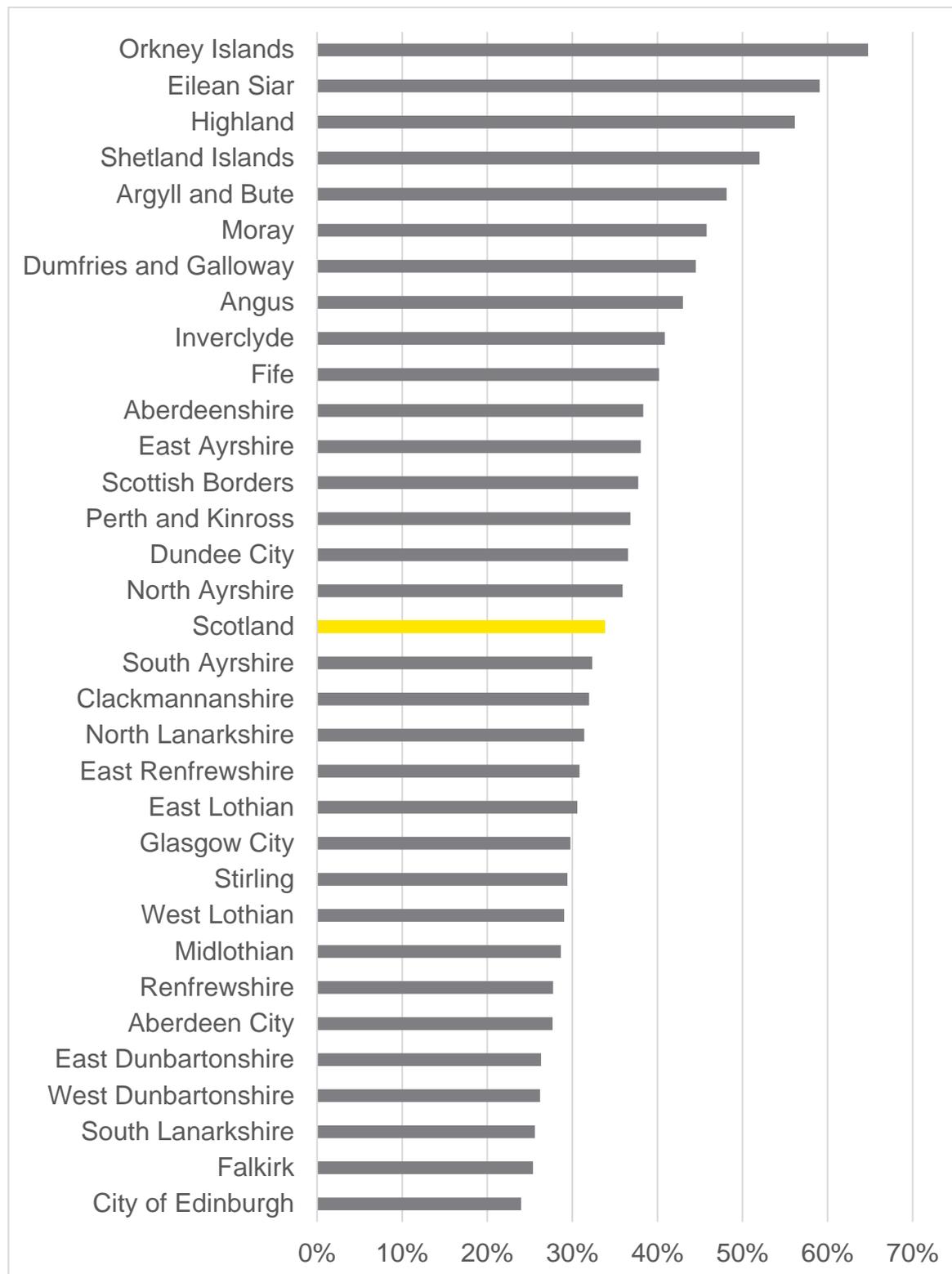
- ▶ Develop a financial base case based on the chosen operating model and delivery structure.

Management Case

- ▶ Develop a robust and comprehensive project plan, confirming dialogue and decision points with SG.

Appendix A – Fuel poor households by Local Authority

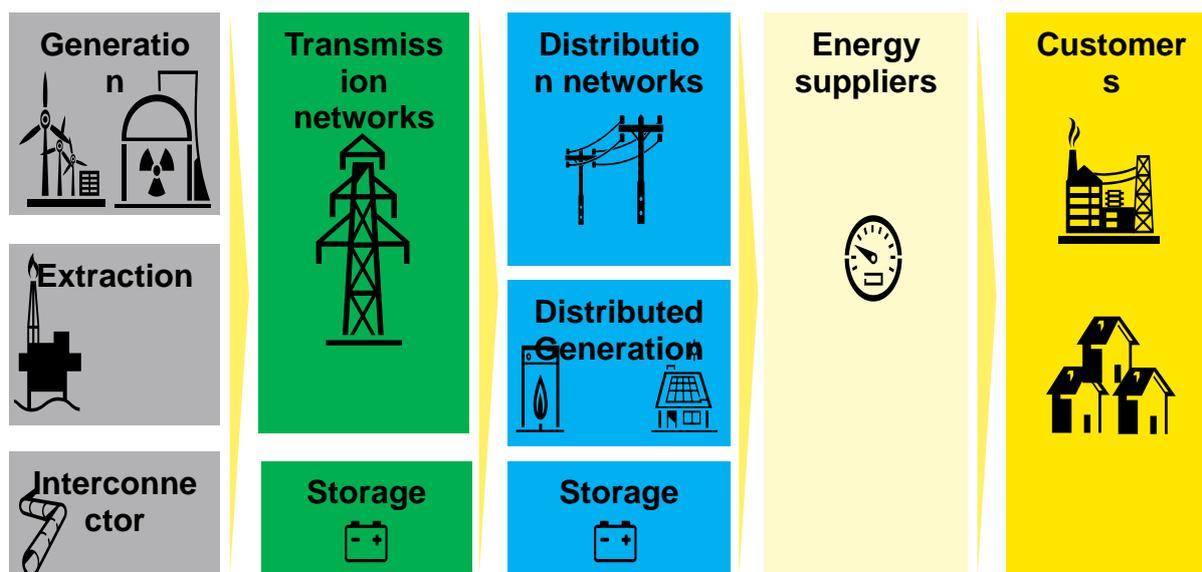
Source: Scottish House Condition Survey (2013-2015)



Appendix B – Market and regulatory context

Market context

The gas and electricity (energy) sectors in Great Britain (GB) are broadly made up of import/extraction and generation, transmission and distribution networks, energy suppliers and customers. The sector is then overseen and governed by Government and regulators. This appendix provides an overview of each area.



Extraction, generation and import/export

Natural gas (gas) is extracted from gas fields around the world, including the UK Continental Shelf (UKCS) and traded globally. Gas extracted from the UKCS can be piped onshore, whereas gas extracted elsewhere in the world can be turned into Liquefied Natural Gas, shipped to GB, and then processed at one of several terminals. There are three gas interconnectors in GB, connected to Belgium, the Netherlands, and the Republic of Ireland, which can import and export gas.

Electricity is generated in GB through the conversion of energy from a number of different of sources:

- ▶ Fossil fuels: coal and gas
- ▶ Nuclear material: uranium
- ▶ Renewable sources: wind, solar, biomass, hydro, tidal.

Interconnectors also import electricity generated in Europe to GB (and vice versa). There is currently 4 gigawatt (GW) of interconnector capacity from four interconnectors, connecting GB to France, Netherlands, Northern Ireland and the Republic of Ireland.

Routes to market

Producers and generators have a number of ways to sell gas and electricity:

- ▶ Self-supply if they are vertically integrated, i.e. have their own energy supplier
- ▶ Structured contact, such as a Power Purchase Agreement (PPA) or tolling agreement
- ▶ Over the counter brokered bilateral trades
- ▶ Exchange-based, i.e. using a platform such as APX or N2EX
- ▶ Balancing Mechanism, where electricity is sold to balance supply and demand on a half hourly basis.

Overview of GB electricity trading arrangements

The GB electricity market is a decentralised bilateral electricity market, where suppliers and generators are required to take balanced positions by an hour ahead of real time (Gate Closure). Suppliers and generators trade energy up to Gate Closure allowing generators to sell an output equal the expected plant output and suppliers' will buy energy to match their expected load.³⁶

At Gate Closure, the National Grid (the System Operator) checks that the electricity market is balanced (i.e. generation and demand match). Where there is an imbalance, the System Operator can buy additional electricity, or pay for a reduction on generation, in the Balancing Mechanism from licensed generators.

Generators and suppliers that are physically over- or under-supplied going into Gate Closure face 'cash-out' incentives. The System Sell Price (SSP) and System Buy Price (SBP) are the cash-out or 'Energy Imbalance' prices that are used to settle the difference between contracted generation or consumption and the amount that was actually generated or consumed in each half hour trading period. For each half hour trading period, the 'cash-out' or 'energy imbalance' prices (SSP and SBP) will be associated with Balancing Mechanism Bids and Offers accepted by National Grid as well as the Balancing Services used for that specific half hour.³⁷ At settlement SSP and SBP are the same in equilibrium.

Trading Risk

Many suppliers buy energy forward to hedge the energy price risk, with subsequent trading if there is a significant shift in the price and/or the suppliers' demand forecast.

One form of selling energy forward, particularly used by independent generators, is through a PPA, which commits the generator to sell an agreed volume of energy to another party at a pre-agreed price structure.

Energy networks

Networks are used to convey gas and electricity from points of generation and entry into GB, to industry, businesses, and households.

³⁶ This occurs as well among vertically integrated companies, who have to maintain separate supply and generation accounts and balance them ahead of gate closure.

³⁷ Currently set at the weighted average price of the 50MW of most expensive balancing actions taken in that period. From November 2018 this will be set according to the 1MW of most expensive balancing actions.

Both gas and electricity networks are broken down into two: the transmission network and the distribution networks. The transmission network moves gas and electricity, at high pressure and high voltages, respectively, across the country and interfaces with the distribution network. The distribution networks take gas and electricity, at lower pressure and lower voltages, respectively, from the transmission network and delivers to businesses and homes.

The national gas transmission network across the whole of GB is owned and operated by the National Grid. There are three separately owned, but interconnected, electricity transmission networks covering the whole of GB. The two electricity transmission networks operating in Scotland are owned by SSE and Scottish Power respectively. One out of the eight gas distribution network companies that operates in GB covers all of Scotland (Scotia Gas Network or SGN), while two of fourteen electricity distribution network companies operate in Scotland (SSE and Scottish Power).

Large scale electricity generation is connected to the electricity transmission network, whereas smaller scale generation, such as solar panels, is connected to the distribution network. Such generation is also referred to as distributed generation.

Both the electricity and gas transmission networks need to be balanced, i.e. supply needs to equal demand. There are two System Operators, one for gas and one for electricity, which manage the transmission networks to ensure they are balanced.

Energy suppliers and customers

Energy suppliers buy gas and electricity, from generators or traders, to sell to their customers, and also contract with network companies for the physical delivery of energy to their customers. Energy suppliers also meter their customers' usage in order to bill them. Energy suppliers in GB have been mandated to roll-out smart meters to all homes and small businesses which agree to the installation by the end of 2020.³⁸

Regulatory context

There are a number of licences and regulations impacting domestic energy suppliers in Scotland, limiting new entrants to the market who could help resolve the problems that the industry currently faces. This section provides further background on the current regulatory framework, licencing conditions and required programmes and policies.

Ofgem

Ofgem is the independent National Regulatory Authority for GB, responsible for regulating companies operating in the energy markets throughout GB to protect consumers' interests.

Ofgem is governed by the Gas and Electricity Markets Authority, which determines strategy, sets policy priorities and makes decisions on a wide range of regulatory matters, including price controls and enforcement. Ofgem's principal objective is to

³⁸ BEIS (2017), <https://www.gov.uk/guidance/smart-meters-how-they-work>

protect the interests of existing and future electricity and gas consumers. They do this by:

- ▶ promoting value for money
- ▶ promoting security of supply and sustainability, for present and future generations of consumers, domestic and industrial users
- ▶ the supervision and development of markets and competition
- ▶ regulation and the delivery of government schemes.

As a regulator, Ofgem works closely with suppliers to improve performance in several ways, including:

- ▶ handling consumer complaints
- ▶ fulfilling their social obligations, and
- ▶ providing support for vulnerable consumers.

Vulnerability is a key focus of Ofgem in Scotland, ensuring that suppliers are providing schemes and services to those in need.

Licence conditions

Ofgem regulates domestic energy suppliers by imposing licence conditions on them. Some key licence conditions relate to standards of conduct, tariff structures and fixed term contracts, compliance with industry codes (such as the Balancing and Settlement Code, the Uniform Network Code and the Smart Energy Code), prohibition of cross-subsidies to/from interconnector, distribution and transmission businesses owned by the licensee and the smart-meter roll-out.

Ofgem expects suppliers to self-report instances of non-compliance with their licence obligations, and resolve issues quickly.

Other obligations

In addition to licence conditions and Industry Codes, suppliers also need to comply with a range of policies and programmes, such as Government social and environmental policies (see below), and Guaranteed Standards of Performance. Voluntary codes of practice also exist, including Code of Practice for Accurate Bills and Safety Net for Vulnerable Customers.

As part of Ofgem's compliance monitoring, suppliers are required to submit specific pieces of information following a set timetable. Reporting requirements include data on switching, complaints, erroneous transfers, debt, and disconnections.

Government social and environmental policies

Domestic energy suppliers incur the costs of a number of social and environmental policies^{39,40} (most of which have been introduced by Business, Energy & Industrial Strategy (BEIS) over the years), which are passed on to their customers.

Policy	Description	Applicable to gas (G), electricity (E), or both suppliers (B)?	Threshold for policy to apply to energy supplier
Energy Company Obligation	A scheme to increase energy efficiency and tackle fuel poverty by ensuring obligated suppliers promote primary measures of roof and wall insulation. They must also promote any measures which could improve the ability of low income and vulnerable people to heat their homes	B	<ul style="list-style-type: none"> ▶ Applicable to suppliers with more than 250,000 domestic customers, and provide more than 400GWh of electricity/ more than 2,000GWh of gas ▶ Once suppliers have crossed the threshold, there is a taper to initially ease the cost burden
Smart Meters (SM)	A programme to offer SM to all domestic and small business energy customers by the end of 2020, with the aim of making consumers conscious of how much energy they are using and reduce peak, and overall, consumption as a result	B	<ul style="list-style-type: none"> ▶ All energy suppliers must offer SM to all domestic and small business energy customers ▶ Suppliers with more than 250,000 domestic customers must roll-out SM ▶ Small suppliers must set out how they plan to deliver SM to their customers
Small scale Feed-in-Tariffs (FiTs)	A policy designed to promote the uptake of renewable technologies by paying for the electricity generated by certain eligible systems, even when the power is used onsite. Any exported power also attracts a	E	<ul style="list-style-type: none"> ▶ All electricity suppliers are required to make payments into the Ofgem FIT Levelisation Fund ▶ Suppliers with more than 250,000 domestic electricity customers must be a FIT licensee

³⁹ Some policies are specific to electricity or gas supply.

⁴⁰ Small domestic energy suppliers are exempt from some of these policies, and so do not face the associated costs.

Policy	Description	Applicable to gas (G), electricity (E), or both suppliers (B)?	Threshold for policy to apply to energy supplier
	payment		and offer FITs to customers
Renewables Obligation	The obligation on electricity producers is to increase the proportion of electricity they supply from renewable sources by funding a subsidy. This scheme is now closed to all new energy generating capacity with certain exceptions	E	► Not applicable
Contracts for Difference (CfDs)	The contract aims to bring about investment in renewable electricity generation by providing a 'top-up' to the wholesale electricity price, to a fixed, elevated 'strike price. This reduces exposure to wholesale price movements	E	► Not applicable
Capacity Market	The capacity market is a subsidy auction for electricity generation capacity which aims to incentivise sufficient investment in capacity to reduce the risk of supply shortages and corresponding spikes in wholesale prices	E	► Not applicable
EU Emissions Trading Scheme (ETS)	Increases the wholesale cost of electricity by increasing the costs of using fossil fuels through certain installations having to monitor and report their level of carbon dioxide emissions. Emitters are allocated or must buy allowances for the amount they emit	E	► Not applicable

Policy	Description	Applicable to gas (G), electricity (E), or both suppliers (B)?	Threshold for policy to apply to energy supplier
Carbon Price Floor	This sets a minimum price per tonne of carbon dioxide emissions from electricity generators, which increases the wholesale cost of electricity	E	▶ Not applicable
Warm Home Discount support	A government scheme aimed at tackling fuel poverty in GB. Under the scheme, larger energy suppliers support people who are in fuel poverty or are at risk of it. Some smaller suppliers also voluntarily participate in part of the scheme	B	<ul style="list-style-type: none"> ▶ Energy suppliers with over 250,000 domestic customers are required to provide support to all groups targeted under the initiative ▶ Smaller suppliers participating on a voluntary basis can only directly assist the Core Group (fuel-poor pensioners), not the Broader Group (wider group of fuel-poor) or help fuel-poor customers through third parties

The European Union

The UK, as a Member State of the EU has sovereign control over its energy mix, but has implemented and complied with a number of EU directives that impact the energy sector. Key areas of UK energy sector which are subject to EU decisions include:

- ▶ the Internal Energy Market
- ▶ security of supply and the role of EU interconnection
- ▶ the EU Emissions Trading Scheme
- ▶ the Paris Agreement resulting from the 2015 UN climate change negotiations in Paris (COP21)⁴¹.

As the UK prepares to leave the EU the exact implications for the areas listed above are unknown.

⁴¹ The EU submitted one collective Intended Nationally Determined Contribution, and the UK's pledge was part of this submission

Appendix C – Review of existing suppliers in Scotland

Company Name	Date of incorporation	Dual fuel (D), electricity (E), or gas (G)	Customer numbers (GB), if available	Features prominently advertised				
				Price	Simplicity	Green	Social	Customer Service
Affect Energy Ltd	14/10/2014	D			✓			
Ampoweruk Ltd	09/02/2016	E				✓		
Avro Energy Ltd	14/08/2014	D			✓			
Better Energy Supply Ltd	25/01/2012	G		✓				
Bristol Energy and Technology Services Ltd	17/07/2014	D	110,000				✓	
British Gas Trading Ltd	06/07/1995	D	14,334,000					
Bulb Energy Ltd	02/04/2013	D		✓	✓	✓		
Cardiff Energy Supply Ltd	23/05/2014	G		✓				
Co-Operative Energy Ltd	18/08/2009	D	424,000				✓	
Daligas Ltd	13/01/2012	G		✓				
Economy Energy Supply Ltd	06/03/2013	D		✓				
EDF Energy Plc	01/04/19	D	5,261,000					

Appendix C- Review of existing suppliers in Scotland

Company Name	Date of incorporation	Dual fuel (D), electricity (E), or gas (G)	Customer numbers (GB), if available	Features prominently advertised				
				Price	Simplicity	Green	Social	Customer Service
	89							
Effortless Energy Ltd	30/09/2013	D			✓		✓	
ENGIE Power Ltd	18/06/2001	D				✓	✓	
Enstroga Ltd	07/10/2015	E		✓				
Entice Energy Supply Ltd	05/03/2015	G			✓			
E.ON Energy Gas Ltd	01/04/1989	D	6,738,000					
Extra Energy Supply Ltd	01/05/2012	D	404,000	✓				
First Utility Ltd	11/03/2004	D	883,000	✓				
Flow Energy Ltd	11/01/2011	D	250,000					✓
GnERGY Ltd	17/08/2009	G		✓				
Green Energy UK Ltd	01/04/2001	D				✓		
Green Network Energy Ltd	01/04/2015	D	736					✓
Good Energy Gas Ltd	06/07/2005	D	38,800			✓		
Hudson Energy Supply UK Ltd	11/01/2011	D		✓				

Appendix C- Review of existing suppliers in Scotland

Company Name	Date of incorporation	Dual fuel (D), electricity (E), or gas (G)	Customer numbers (GB), if available	Features prominently advertised				
				Price	Simpli city	Green	Social	Customer Service
Iresa Ltd	21/08/2012	D		✓				
I Supply Energy Ltd	16/01/2007	D	180,000	✓				
Npower Gas Ltd	09/12/1994	D	4,725,000		✓			
Octopus Energy Ltd	14/10/2014	D	1,500			✓		
Ovo Gas Ltd	19/11/2008	D	408,000				✓	
PFP Energy Ltd	14/04/2014	D		✓				
Robin Hood Energy Ltd	01/05/2012	D	100,000	✓			✓	
Scottish Power Energy Retail Ltd	14/10/1998	D	5,161		✓			
So Energy Trading Ltd	14/10/2014	D		✓				
Solarplicity Supply Ltd	15/07/2014	D		✓		✓		
SSE	20/05/1992	D	6,857,000	✓				
Spark Energy Supply Limited	26/06/2006	D			✓			
Telecom Plus Plc	09/10/1996	G	600,000	✓	✓			✓
Tonik Energy Ltd	07/10/20	D	5,000	✓		✓		

Appendix C- Review of existing suppliers in Scotland

Company Name	Date of incorporation	Dual fuel (D), electricity (E), or gas (G)	Customer numbers (GB), if available	Features prominently advertised				
				Price	Simpli city	Green	Social	Customer Service
	15							
Toto Energy Ltd	09/10/2014	D		✓				
Utilita Gas Ltd	29/07/2003	D	497,000					
Zog Energy Ltd	20/09/2012	D		✓				

Source: EY analysis

Appendix D – ESA 2010 entity classification principles and SG funding implications

All UK Government departments (including SG) must manage their spending under the HMT Consolidated Budgeting Guidance (CBG) which applies in turn the UK Government's Fiscal Framework. This Framework applies European System of Accounts 2010 (ESA 2010). The EUROSTAT Manual of Government Deficit and Debt (MGDD 2016) provides guidance on demarcation of the public and private sectors. There is a chance that the UK Government will no longer apply the above information post Brexit, which may take place prior to the establishment of the Energy Co. However we are not aware of the Government's intentions for its Fiscal Framework post Brexit and so assume that the requirements do not change while highlighting the possibility that they will change.

This Appendix describes how we expect the Office of National Statistics to apply ESA 2010 and MGDD 2016 in classifying the Energy Co., and then summarises how this classification affects its impact on SG budgets.

Classification process summary

ESA 2010 classifies economic entities into one of the following:

- ▶ Private sector
- ▶ Public sector – and one of:
 - ▶ General Government
 - ▶ Public Corporation
 - ▶ Financial Corporation; this classification applies to entities that practice specific banking activities and this Appendix assumes that it is not relevant to the Energy Co.

MGDD I.2 sets out stages that a classification process must follow:

- ▶ Is the entity a separate body (MGDD I.2.2)?
- ▶ Does a public body control the entity (MGDD I.2.3)?
- ▶ Is the entity a market body (MGDD I.2.4 and VI.1.3)?
- ▶ Does the entity fulfil a specific narrow role for Government (MGDD I.6)?

Any entity that behaves as a market unit is private sector, while any non-market entity that a General Government unit controls is a General Government sector body.

Is the entity a separate body?

MGDD I.2.2 states that a separate body ('institutional unit') must be able to:

- ▶ Own and exchange ownership of goods and assets with other institutional units
- ▶ Be legally accountable for economic activities and decisions
- ▶ Enter into contracts that result in it incurring liabilities and costs
- ▶ Maintain standalone financial statements summarising the results of all of its transactions during an accounting period as well as a balance sheet of its assets and liabilities.

Does a public body control the entity?

ESA 2010 states that an entity controls another entity if it defines that entity's general policy and programme (MGDD I.2.3) and sets out three situations, any one of which normally indicates control:

- ▶ A right to appoint, veto or remove most key officers or board of directors
- ▶ A right to appoint, veto or remove most appointments to the unit's key committees, or
- ▶ Ownership of more than 50% of the unit's voting rights or equivalent if it does not issue shares.

Statisticians consider each of these situations in aggregate such that if several General Government units' rights sum to a majority, the situation applies. MGDD I.2.3 then states that if none of the above situations conclusively applies the analysis must assess a further six criteria. If then none of these additional six criteria apply, considering them collectively may still indicate control. The table below summarises these additional criteria:

ESA 2010 additional criteria

Criterion	Comments
Can government appoint, remove or veto key personnel?	Refers to determining general policy through influential Board members
Does Government hold special or "golden" shares?	Depends on whether the rights are contingent or time-restricted
Can Government control through contract?	If Government is exclusive customer of outputs, may indicate dominant influence over strategy
Can Government control borrowing and use of funds?	Government may veto borrowing or control how body uses funds it borrows

Does Government control through excessive regulation?	Tight regulation (e.g. utilities, rail) may restrict body’s ability to set policy because it is set up for Government purpose
Other factors	Control dividends, start or end of activities

Source: MGDD

Is the entity a market body?

MGDD I.2.4 states that the entity will be a market unit if it passes the MGDD’s ‘Market Test’. This assesses whether the entity does or will meet more than 50% of its costs (including financing and depreciation) from revenues that arise from sales at prices that are economically significant.

MGDD VI.1.2 and VI.1.3 consider specific circumstances and state an underlying principle that revenue is sales at economically significant prices if the body provides a service specifically to the entity making the payment, and the charge for the service is similar to its underlying cost. We expect that the ONS will assess this criterion on a long-run basis because a new body may fail this test in its first years of operation as it builds demand for its services. This assessment will therefore need a robust business plan that demonstrates how this demand is likely to grow.

Does the entity fulfil a specific narrow role for Government?

MGDD I.6 considers entities that Government sets up to fulfil a specific role. These bodies may meet all other criteria for private sector classification but in substance may not be autonomous or have no autonomy of action. Instead, the entity would be a Special Purpose Entity’ (SPE) and part of the General Government sector because it in effect implements Government policies.

ESA 2010 (2.17) states that SPEs usually fulfil narrow, specific or temporary objectives and isolate a financial risk, a specific taxation or a regulatory risk. Paragraph 2.18 of ESA 2010 states that there is no common definition of an SPE but that a Government will classify an SPE as for other entities if and only if it is sufficiently independent. The MGDD states that an SPE governing board’s sole purpose is to ensure that the SPE implements a legal contract effectively, and has no autonomy to direct the SPE to enter into other business activity.

Classification outcomes summary

These are:

- ▶ If a public body does not control the entity under any of the criteria under “Does a public body control the entity?” above, the entity is a private sector body
- ▶ If a public body does control the entity and the Market Test applies, it is a public corporation
- ▶ If a public body does control the entity and the Market Test does not apply, it is part of General Government.

Budgetary impact summary

CBG paragraphs 11.13 and 11.14 summarise the budgetary impacts of public corporations. In summary:

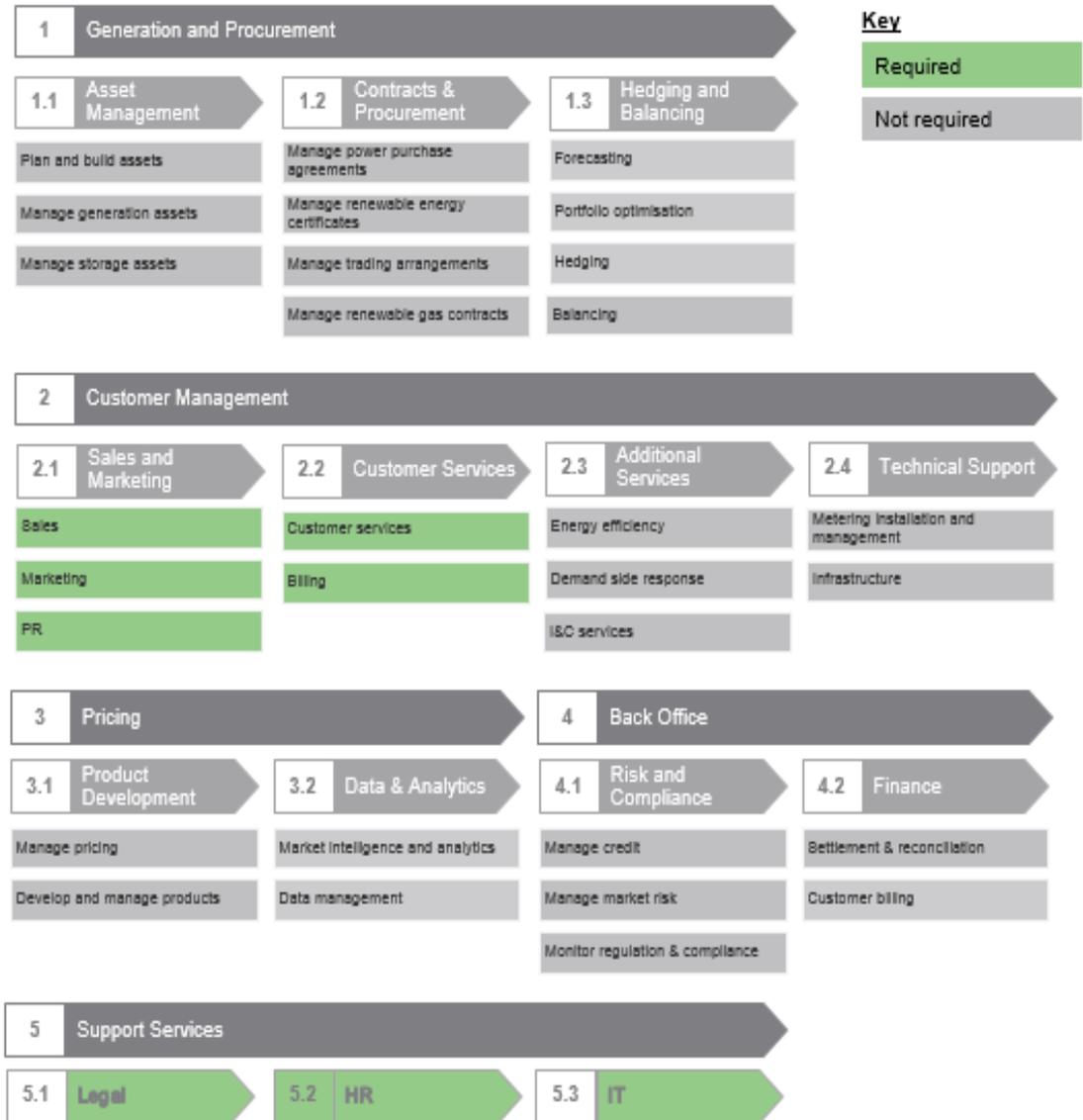
- ▶ Any General Government body's costs, revenues and borrowing will score directly against the relevant sponsoring department's C-DEL' and R-DEL or (Annual Managed Expenditure) AME depending on its type
- ▶ Any net impact of a subsidy paid to and dividends received from a public corporation, and borrowing by a public corporation scores against the relevant sponsoring department's C-DEL, R-DEL or AME, depending on its type.

This means that a public corporation's revenue budget impact is likely to be lower and less volatile than that of a General Government entity, while there will be no significant differences in C-DEL impacts.

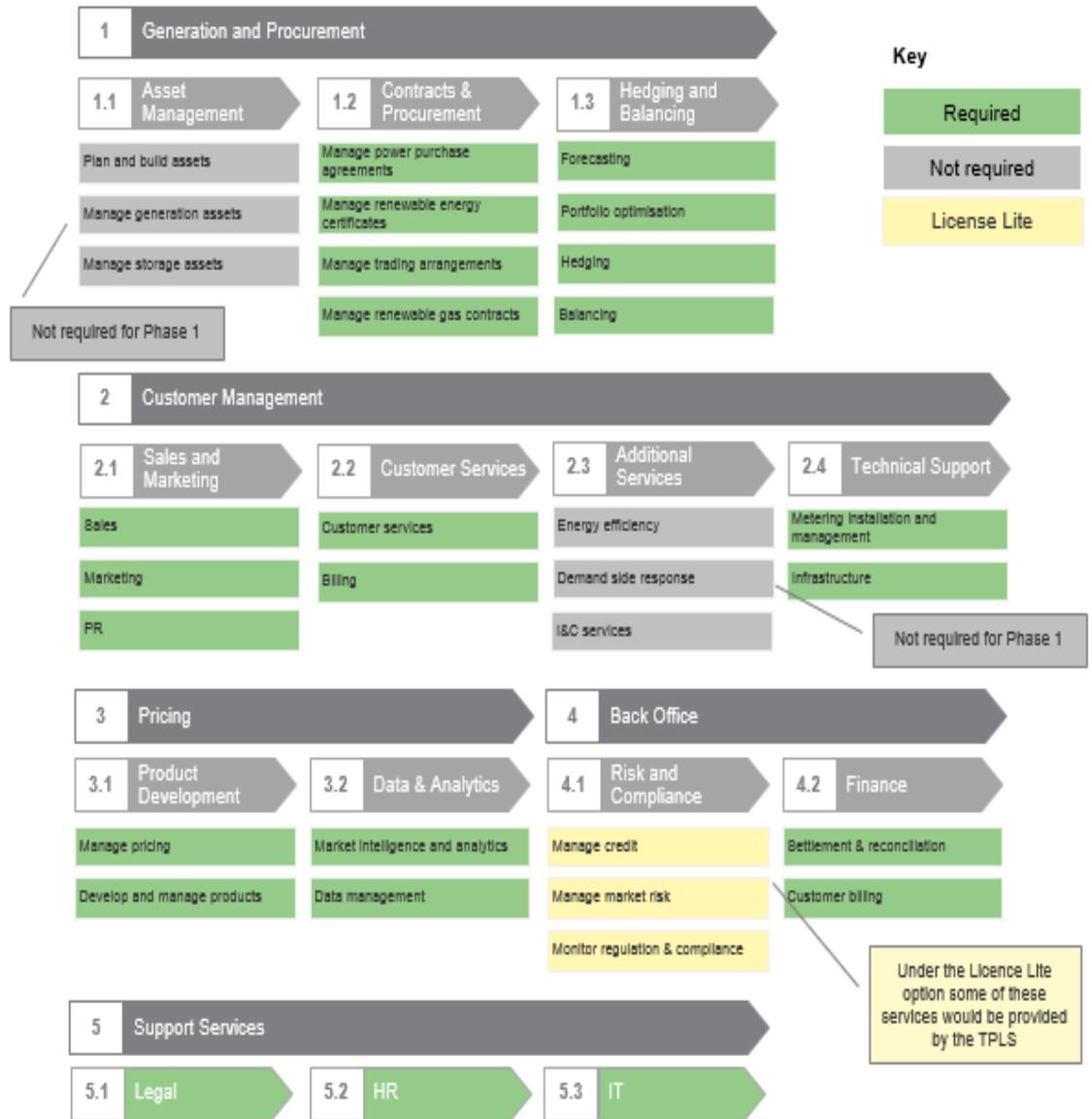
Appendix E – Operational capabilities for operating models

White Label operating model

Source: EY

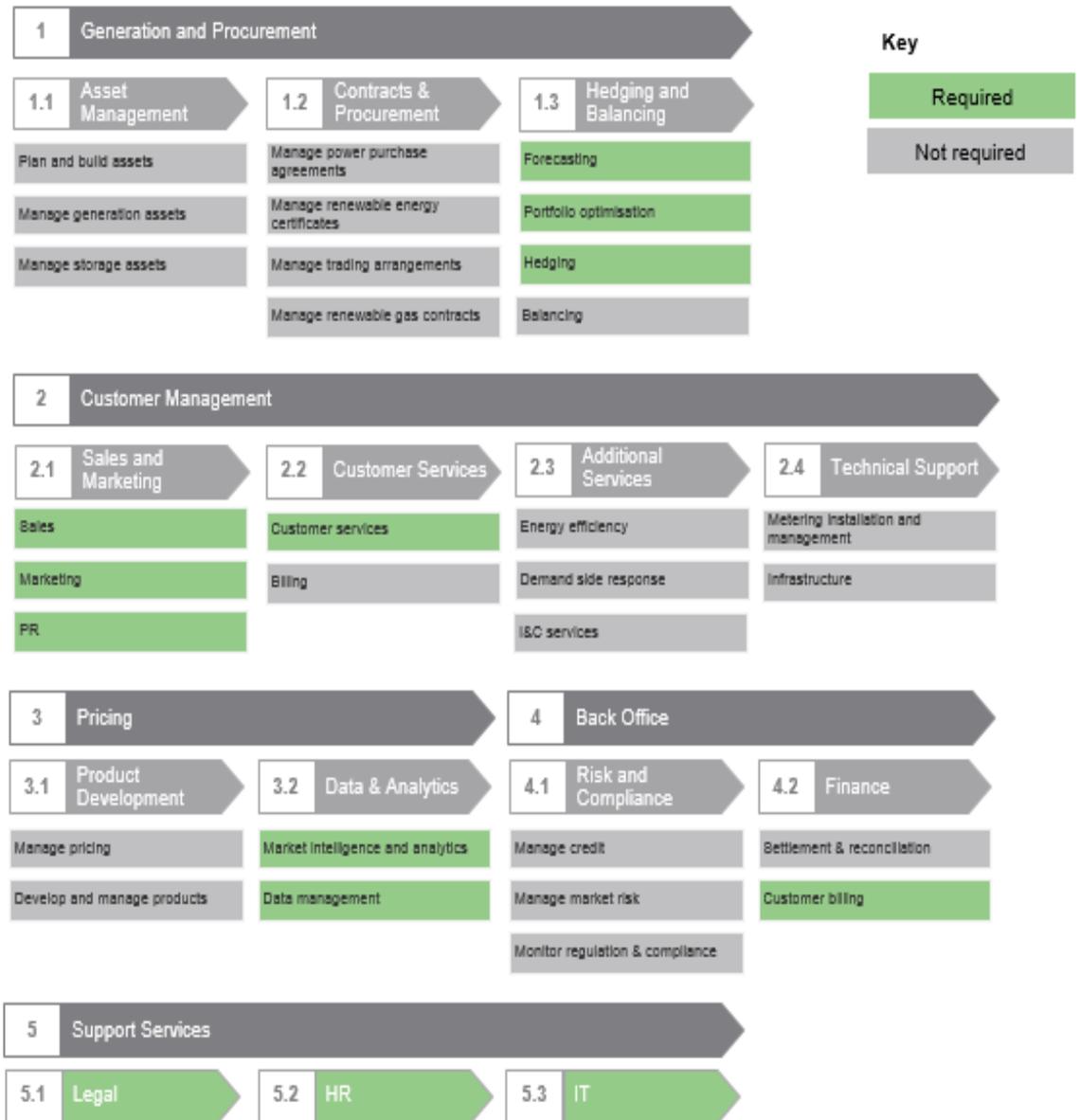


Full Capability operating model



Source: EY

SG Framework operating model



Source: EY

Appendix F – Risk Register

Risk ID	Class of Risk	Risk Description	Risk Owner	Likelihood 1- Low 5-High	Impact 1-Low 5-High	Exposure	Mitigation actions	Likelihood 1- Low 5-High	Impact 1-Low 5-High	Exposure
1	Commercial	SG selects a sub-optimal delivery vehicle and / or operating model, restricting the ability of the Energy Co to achieve its objectives.	SG	3	5	15	SG are working with both financial and legal advisors in the selection of the operating model/delivery vehicle for the Energy Co. Options will be further examined and critically evaluated in the OBC before a selection is made.	2	4	8
2	Commercial	The Energy Co is unable to acquire the necessary expertise to build and grow a future-proof and cost efficient organisation.	SG	3	4	12	The Strategic Case has considered the current market and also the future direction of the market. Short listed options for the operating model have taken findings into consideration.	2	4	8
3	Commercial/Financial	The Energy Co is unable to become cost efficient compared with existing energy supply companies. This can be due to a number of cost / efficiency considerations such as customer acquisition costs, operating overheads, energy purchase costs, green levies and the cost of smart meter roll-out.	SG	3	5	15	SG are obtaining specialist advice to understand and capture these costs. Costs will be further developed within the OBC and expected cash flows.	2	4	8
4	Commercial	The Energy Co does not successfully engage with the target audience, as a result fuel poverty remains an issue as customers have not switched from their original tariffs to a more suitable offering.	SG	3	5	15	Scottish Ministers have agreed that there will be consultation period towards the end of 2018. This will provide the opportunity for the management team of the Energy Co to engage with a range of stakeholders, including consumers. The programme will incorporate feedback from the consultation into future plans for the Energy Co to ensure it reflects the needs of stakeholders.	2	3	6
5	Financial	The scale of funding required for set-up and operating costs for the Energy Co is unknown. From a review of precedent companies it is evident that financial support from SG in the initial years will be significant.	SG	5	5	25	The OBC will develop the expected set up and operational costs for the Energy Co through extensive market testing. Following this the SG can review the level of funding required and consider how this will be provided for.	3	3	9
6	Financial	The Energy Co is not self-financing in the future and requires additional SG funds / financing, breaching State Aid regulations.	SG	4	5	20	The Financial Case has reviewed each of the short listed options and discussed a potential cost range for each. As the programme progresses the OBC will look to provide a financial base case and establish cash flows. Only options with positive NPV's will be taken forward.	1	5	5
7	Legal	State aid risk: SG is challenged by other suppliers on the basis that the Energy Co is seen to be subsidised and / or guaranteed by SG.	SG	2	4	8	SG are liaising with legal advisors throughout the development of the programme. Options taken forward will be both State Aid compliant and economically viable to ensure State Aid restrictions are not breached in the future.	1	4	4
8	Management	It takes longer to prepare and create the Energy Co. than originally envisioned, resulting in greater costs.	SG	3	4	12	A detailed implementation plan will be established, there will be a process to monitor the completion of tasks to ensure delivery of the Energy Co is as scheduled.	2	4	8
9	Management	Poor project management and project governance leads to implementation delays, budget overspend or potential reputational damage.	SG	3	4	12	SG have a strong track record of managing and implementing strategic projects. They have a well defined project management process and the ability to assemble teams with the correct mix of skills and experience. This will ensure appropriate decision making and clear lines of governance.	1	4	4
10	Strategic	Existing socially minded suppliers have only been recently established therefore their success and ability to provide energy at competitive prices whilst remaining self sufficient is not known.	SG	5	5	25	The OBC will review the likely operating costs based on the selected operating model. Analysis will consider the customer targets and revenues required for the Energy Co to be successful and if it can be self financing whilst maintaining competitive prices.	2	4	8

Appendix G – Detailed tax analysis

Introduction

This Appendix is designed to highlight the key tax VAT considerations that will need to be taken into account in terms of establishing and operating an Energy Co.

The high level comments are based on the information provided and should be refined as the project develops and the preferred structure and operating model for the Energy Co. is selected.

Short list of options

The following four options have been identified:

1. Do nothing
2. Existing socially minded supplier
3. Government Owned Company
4. Federal model.

Choice of legal entity

One of the key objectives of the Energy Co. is that whatever entity is selected it should be established as a not-for profit organisation (NFP). Setting up an entity with a NFP objective, directs how an organisation deals with any surplus that arises (i.e. by reinvestment in the business as opposed to distribution to shareholders), not that the organisation does not generate a profit.

There are many different legal forms that a NFP organisation can take, however for direct tax purposes the UK tax legislation only really recognises 2 different treatments, namely:

- ▶ Those entities that are charitable in nature
- ▶ Those that are non-charitable.

Entities that are established with charitable purpose, will have the ability to take advantage of charitable tax exemptions (as outlined below), including the ability to potentially shelter taxable profits in any non-charitable group entities.

Those that are not charitable, have no special tax treatment and are subject to tax in the same way as normal commercial entities, despite the NFP status. Where this is the case, further consideration should be given to the proposed operating model/transactions of any proposed entity to identify the profile of future profits or losses and the availability of tax reliefs.

Based on the short list of options for legal entity that has been selected through this process, we would make the following comments:

Do nothing

Where the Energy Co. project does not proceed, no UK tax consequences will arise.

Existing socially minded supplier

In this scenario the Energy Co. would utilise/invest in/take over an existing socially minded supplier as the future delivery structure. An existing socially minded supplier will be used as an example to comment on the possible tax implications of this delivery structure.

The existing supplier is structured as a Community Benefit Society (CBS) whose members comprise a number of social housing providers. The CBS is an asset-locked and non-profit distributing organisation.

The existing supplier is a wholly owned subsidiary company of a non-trading holding company, which is itself a wholly owned subsidiary of the CBS. The existing supplier is the main operating company of the group, being a fully licenced gas and electricity supply business regulated by Ofgem.

The existing supplier will not benefit from any tax exemptions or tax exempt status. It is liable to corporation tax on profits generated from the supply of energy. It has not, however, paid any tax to date due to it being loss making in its first period of operation. Based on forecast projections contained in the offer document for a recent bond issue, the group is not expected to make profits and pay tax until FY2020. Tax relief may be available to shelter profits arising which would potentially push back the date tax becomes payable. However, new loss relief provisions have been introduced which restrict the amount of losses that can be carried forward and utilised against future profits. A more detailed review of the group's historical tax loss position and forecast profit projections would be required to determine the exact date the group would become tax paying.

The holding company has no trading activity. It holds shares in the existing supplier as an investment. Funding has been provided by group undertakings (the CBS). For tax purposes it will likely be considered a company with investment business. Where intra-group loans are provided on an interest bearing basis, tax relief may be available for interest payable subject to provisions contained in the new corporate interest restrictions.

Where loans have been provided from a related party, tax relief can be restricted for the interest expense if the Company is considered to be thinly capitalised or where the terms of the debt are not considered to be arm's length. Compensating adjustments would be available in the lender where transfer pricing adjustments restrict relief in the borrower company, often making adjustments tax neutral across a UK group. However this may be relevant depending at which level SG would seek to invest in the group.

There is not sufficient publicly available information to determine the actual tax position of the holding company, however, based on the accounts for FY2016 it would appear that the company is not currently tax paying.

The CBS is a community benefit society registered under the Co-operative and Community Benefit Societies Act 2014. Again, based on publicly available information it is not possible to confirm its tax status or the actual activity taking place in this entity. A community benefit society will generally take one of 2 forms, these are described below.

Charitable community benefit society

A CBS will be charitable when it is established with an exclusively charitable purpose and is recognised as such by the OSCR. A charitable society benefits from a number of statutory tax exemptions, which can result in a charity not being liable to corporation tax on its profits or income.

Where charities are engaging in commercial / non-charitable activities it is usual to have these conducted through a wholly owned trading subsidiary. Profits arising in trading subsidiaries can be paid up by way of gift aid to the parent (charitable) entity where the subsidiary has sufficient distributable reserves and cash balances. Paying gift aid in this manner, has the potential to remove any tax charge from arising in the subsidiary, whilst the charity is not subject to tax on the gift aid receipt. This can eliminate any tax charges across a charitable group and is a common structure used and accepted by Her Majesty's Revenue & Customs (HMRC).

In a charitable CBS, the asset-lock provides that if the society or charity is dissolved, any residual assets must be transferred to another charity with the same or similar charitable purpose, thereby reducing flexibility.

Non-Charitable

A non-charitable CBS would be one that does not have wholly charitable objectives. It will be subject to tax on any profits and gains earned similar to an ordinary trading company, unless HMRC accepts that the activity of the company does not amount to carrying on a trade (see comments below).

A non-charitable CBS will not be able to shelter any subsidiary entity profits by way of gift aid.

In the case of the existing supplier, given the forecast projections outline an anticipated tax charge in FY2020, it is considered likely that the CBS has not been established as a charitable CBS, although a more detailed review is recommended in order to confirm this position, should this option be retained going forward. .

Government owned company

Under this option, a new Limited company, 100% owned by SG (potentially by a Department, e.g. Energy Directorate) would be created. The company

would be governed by the Companies Act and with an appointed Board of Directors.

As a separate legal entity, a government owned corporation has no special tax status and would be within the scope to corporation tax. If the Energy Co. is considered to be trading, and profits are generated from that trade, those profits would be subject to tax.

A 'trade' is considered to include 'any venture in the nature of trade'. Broadly, 'trade' is taken to refer to operations of a commercial kind by which a trader provides to customers some kind of goods or services for reward.

In this case, where the Energy Co. providing services (supply of energy) to customers for reward it would be considered trading in nature and taxable.

If the Company generated losses initially those losses would be available for carry forward. Losses carried forward can be offset against future profits arising, subject to an annual restriction where profits exceed £5m pa.

Federal model

Under this option a newly incorporated company could be established to could hold shares in various joint ventures operated by individual LAs. The potential for JVs with partial subsidiary ownership by respective LAs.

The top company would be controlled by SG (through Board representation as per a Government Company). Governance arrangements would be agreed for the regional subsidiaries, including delegated remit. Funding would be through SG (as shareholder) with the potential for third party funding.

The tax treatment of the top company would depend on what that entity is and what activities if any are being carried out in it. In principle the entity would be within the scope of tax. Further consideration would need to be given as to how the top company is funded (i.e. grant or SG loans) and the nature of funding being passed to the subsidiaries.

Where the JV subsidiaries are responsible for the supplies of energy, granting a shareholding of >25% to the individual LAs would break the group relationship for corporation tax purposes. The JV subsidiaries themselves would be trading companies that are subject to tax. However, breaking the group relationship could be tax disadvantageous if one JV subsidiary has losses whilst another is profitable.

Where the intention is for the LA to hold at least 5% of the ordinary share capital of the JV subsidiary, each entity is likely to be considered a consortium owned company, meaning consortium relief could be granted between the consortium owned company (the JV) and the members of the consortium and vice versa. This may be beneficial where there are losses or tax reliefs arising in the top company as a result of debt funding.

A detailed consideration of the structure / flows should be undertaken to ensure this structure does not create unnecessary tax charges as a result of stranded losses or tax.

VAT considerations

The choice of legal entity should not significantly impact the VAT position. The supply of power and electricity is a business activity for VAT purposes and this position is not altered or dependent on the delivery structure chosen to supply the power and electricity.

It will be important to clearly understand and define the VAT structure and VAT accounting obligations of the legal entity that is chosen to deliver the Energy Co.

The legal entity will need to be VAT registered and it will need to charge VAT at the appropriate rate on its sales. It will also need to be able to ensure it is entitled to recover the VAT it incurs on its purchases, subject to the normal rules.

VAT registration

Legal entities undertaking taxable business activities in excess of £85,000 per annum are mandatorily required to register for VAT.

The Energy Co. will be required to register for VAT and, where it is in a net VAT payment position to HMRC, it is likely that it will submit quarterly VAT returns to HMRC.

Based on the short list of options, we would make the following comments:

Do nothing

Where the Energy Co. project does not proceed, no VAT registration will be required.

Existing socially minded supplier

Where an existing socially minded supplier is used, it is likely that the entity is already registered for VAT.

Government owned company

The Government Owned Company would need to be registered for VAT in its own right.

Federal model

This option is potentially more complicated from a VAT perspective, as, hypothetically, the Energy Co. will sit above joint venture companies with each of the individual LAs in Scotland.

This approach is likely to require the Energy Co. to register for VAT and similarly each of the LA joint venture companies would need to register for VAT. This could require up to 33 VAT registrations to be obtained and 33 separate VAT returns would need to be submitted.

It is unlikely, that the Energy Co. and the LA joint venture companies would be able to form a VAT group, unless there is a single controlling entity. In principle, this could potentially be achieved if the Energy Co.'s shareholding in each of the LA joint venture companies is 51% or more.

The benefit of VAT grouping in this instance is that a single VAT group registration would be required and a single VAT return would be submitted covering the activities of all the members of the VAT group. The disadvantages of VAT grouping are that each of the members of the VAT group would be jointly and severally liable for the VAT debts of the other members of the VAT group.

VAT treatment of supplies of power and electricity

The VAT liability of supplies of power and electricity depends on the nature of customer and the levels of power and electricity used by that customer.

Two potential VAT rates apply to retail supplies of power and electricity, the:

- ▶ Reduced rate of 5%
- ▶ Standard rate of 20%.

The reduced rate of VAT applies to supplies of fuel and power for 'qualifying use'. Qualifying use is defined as domestic use and charitable non-business use.

In principle there are four potential types of customer for VAT purposes:

Domestic supplies

Domestic use is defined as supplies of power and electricity for genuine domestic use. The supply must be made to a dwelling or certain other types of residential accommodation.

The examples of residential accommodation include:

- ▶ Houses, flats or other dwellings (including armed forces residential accommodation, caravans, houseboats, student accommodation etc.)
- ▶ Children's homes and homes providing care for the elderly/disabled/people with alcohol, drugs or mental disorders
- ▶ Institutions that are the sole or main residence of at least 90% of their residents
- ▶ Monasteries, nunneries and similar religious communities

- ▶ Hospitals, prisons (or similar) and hotels, inns etc. are not considered to be residential accommodation for the purposes of applying the reduced rate of VAT.

Charitable non-business use

Charities qualify for the reduced rate of VAT where power and electricity is used for:

- ▶ A dwelling or certain other types of residential accommodation, such as a children's home, hospice or care home for the elderly or disabled
- ▶ Charitable non-business activities, such as free day care for the disabled.

Where the charity does not make a charge for the services it provides, its activities are likely to be non-business. Care is needed in this area as many Charities do undertake business activities for VAT purposes and where this is the case, power and electricity used to support the Charities' business activities is unlikely to qualify for the reduced rate of VAT.

In order to apply the reduced rate of VAT, the Energy Co. will need to undertake reasonable steps to ensure that the supplies of power and electricity are being used for a qualifying charitable use. Typically part of this process should involve the Charities providing a certificate to the Energy Co. confirming that they are using the power and electricity for a qualifying charitable use.

Commercial de minimis supplies

Where the Energy Co. makes small de minimis supplies of power and electricity to customers, the supplies are treated as being for domestic use, regardless of whether the customers are domestic, charitable or commercial customers.

- ▶ Supplies of electricity qualify as de minimis, where the quantity of electricity provided does not exceed 33 kilowatt hours per day, or 1000 kilowatt hours per month;
- ▶ Supplies of gas qualify as de minimis, where the quantity of piped gas provided does not exceed an average of 145 kilowatt hours per day, or 4,397 kilowatt hours per month.

The de minimis limits apply to any one customer at any one of the customer's premises.

Industrial and commercial customers

Supplies to industrial and commercial customers which exceed the de minimis limits are subject to VAT at the standard rate.

Partly qualifying use

Where power and electricity is supplied to premises partly for qualifying use and partly for non-qualifying use, the VAT should be charged at the appropriate rate on each element of the supply made. However, where 60% or more of the power and electricity is supplied for qualifying use, the whole supply can be charged at the reduced rate.

A certificate should be obtained from the customer that states what percentage of the power and electricity supplied is being put to a qualifying use.

Ancillary supplies

The reduced rate of VAT can also be applied to ancillary supplies related to the principle supply of power and electricity, provided:

- ▶ The Energy Co. makes the supply and provides the power and electricity to the consumer
- ▶ The supplies are charged to that consumer
- ▶ They are inseparable from a supply of fuel or power to that consumer.

For example, the reduced rate can be applied to:

- ▶ Disconnection and re-connection of the supply and special meter readings at the instigation of the supplier
- ▶ Installation by a supplier of liquefied petroleum gas of a bulk gas tank regarded as essential to the supply of liquefied petroleum gas
- ▶ Installation of check meters
- ▶ Installation or replacement of lines and switchgear belonging to the electricity supplier
- ▶ Installation tests and re-tests where required by the supplier to protect their equipment
- ▶ Maximum demand and minimum guarantee charges
- ▶ Removal of damaged coins/tokens from meters
- ▶ Rental charges for meters, including secondary meters used by landlords to apportion charges between their tenants
- ▶ Rental of a bulk gas tank in conjunction with the supply of liquid petroleum gas to that tank
- ▶ Repair, maintenance or replacement of equipment and gas pipes or electric cables - belonging to the supplier - up to and including the consumer's meter

- ▶ Replacing a credit meter with a pre-payment meter under the supplier's Code of Practice, or replacing or re-siting by a supplier of their meter at their instigation
- ▶ Replacement of mains fuses and provisions of earthing terminals
- ▶ Standing charges.

Wholesale purchases of power and electricity

The Energy Co.'s wholesale purchases of gas and electricity from counterparties established in the UK are likely to be subject to UK domestic reverse charge.

UK Domestic Reverse Charge

The domestic reverse charge procedure is an anti-fraud measure that is designed to counter criminal attacks on the UK VAT system by means of sophisticated fraud.

Subject to certain exceptions, the domestic reverse charge applies to all wholesale supplies between UK counterparties under trading contracts (for example European Federation of Energy Traders contracts, Grid Trade Master Agreements and National Balancing Point contracts) and over the counter or spot contracts of:

- ▶ Gas, where it is gas supplied through a natural gas system situated within the territory of a Member State or any network connected to such a system, or
- ▶ Electricity.

The domestic reverse charge also applies to emissions allowances, where compliance markets credits can be used to meet obligations under the EU ETS. These currently comprise EU Allowances, some certified Emission Reductions and some Emission Reduction Units.

Power Purchase Agreements

Sales of electricity made under a PPA or similar agreement may or may not be subject to the reverse charge depending on their wholesale features.

Electricity sold under a PPA agreement will not be regarded as wholesale supplies, which are subject to the reverse charge where the:

- ▶ Seller of electricity is a generator who is exempted from holding a generating licence
- ▶ The generation capacity by asset is 100 megawatt (MW) or less
- ▶ The generated volume is not allocated to the generator's production account with Elexon.

Exceptions to the UK Domestic Reverse Charge

The domestic reverse charge does not apply to supplies of gas and electricity made under supply license or metered arrangements to domestic and business premises. For example, supplies made to commercial customers that are used and consumed within that business, rather than being resold or traded are not subject to the reverse charge.

Further examples of supplies or charges not covered by the domestic reverse charge include:

- ▶ Distribution use of system charges
- ▶ Transmission network use of system charges
- ▶ Metering rental charges
- ▶ Data collection charges
- ▶ Balancing system use of system charges
- ▶ Interconnector capacity charges
- ▶ Gas storage charges
- ▶ Gas network system charges
- ▶ Payments made in respect of constraint contracts with National Grid
- ▶ Balancing and settlement code charges (Elexon market operator charges)
- ▶ Levy Exemption Certificates (LECs) and/or Renewable Obligation Certificates (ROCs) traded separately from the underlying electricity
- ▶ Fees for exchange related settlement for example N2Ex fees
- ▶ Option premiums.

The above list is not exhaustive.

Application of the domestic reverse charge

Where the Energy Co. receives wholesale supplies of electricity from a supplier established in the UK, the domestic reverse charge is likely to apply. This means that the Energy Co.'s suppliers will not charge VAT on their sales invoices to the Energy Co.

Where VAT is not charged by the supplier, the Energy Co. will be required to self-account for the VAT through its VAT return. The Energy Co. will be required to:

- ▶ Charge itself notional output tax based on the net value of the purchase invoice received. This notional output VAT should be included into box 1 of the VAT return
- ▶ Reclaim a corresponding amount of notional input tax in Box 4 of the VAT return
- ▶ The net amount of the purchase should be included in Box 6 and Box 7 of the VAT return.

As a result of the above, the net VAT impact of the domestic reverse charge for the Energy Co. should be zero. The notional output VAT charged should be directly offset by the corresponding input VAT credit claimed.

Renewable Energy Implications

Where the Energy Co. intends to undertake renewable energy projects, which could include, for example, placing solar panels on customers' homes and buildings, the VAT treatment of the arrangements should be considered in detail.

Taking a solar panel project as the indicative example, the following VAT treatments would apply to the related transactions:

Feed in tariffs

Where the Energy Co. receives feed in tariffs in relation to the electricity generated by the solar panels, the feed in tariffs should be treated as outside the scope of VAT.

Export tariffs

Where the Energy Co. sells the electricity generated from the solar panels to other customers, the supplies of electricity will be subject to VAT at the appropriate rate.

Barter transactions

Where the customer receives 'free' electricity as part of the arrangement, it is likely that HMRC would view this a barter arrangement. The customer receives 'free' electricity in return for making a supply (for VAT purposes) of allowing the Energy Co. to place the solar panels on the customers building. The Energy Co. would then be required to account for VAT based on the cost of the 'free' electricity provided to the customer.

Capital investment

From a direct tax perspective capital investment in renewable energy projects would potentially qualify for tax relief, which would be available for offset against trading profits arising in the Energy Co.

For plant and machinery with an expected useful economic life of less than 25 years, capital allowances would typically be available on qualifying expenditure at a rate of 18% per annum on a reducing balance basis. Allowances reduce the level of profits subject to tax.

Similarly, enhanced capital allowances (ECAs) are available for expenditure on energy-saving plant or machinery as specified on the Energy Technology List managed by the Carbon Trust. ECAs allow companies to write off the whole cost of the equipment against taxable profits in the year of purchase.

Non mainstream transactions

SG and the Energy Co. may need to give consideration to the VAT treatment of the related non-mainstream activities and transactions. We have outlined a number of potential areas that should be considered below:

Funding arrangements

The SG and the Energy Co. should give consideration to how the Energy Co. will fund its activities. We have envisaged that SG may provide loan funding to the Energy Co. The VAT liability of any interest income received by SG is likely to be exempt for VAT purposes.

Interest on loan funding provided will potentially be deductible for direct tax purposes. Special rules exist to restrict the amount of tax relief for interest expense in a group to the extent that the aggregate interest expense in any given year is in excess of £2m. The rules contain a number of elections that may increase the amount of tax relief available to a group, however the rules are complex and would require a more detailed consideration depending on the actual funding arrangements.

Where SG or third parties provide services to the Energy Co., it is likely that these charges will be subject to VAT at the standard rate. The Energy Co. should be entitled to reclaim any VAT charged, however it will need to be able to pay the VAT to its suppliers and to be able to cash flow the VAT until such time as the VAT can be reclaimed through its VAT return.

Where SG provides management charges or support services, the valuation of the management charges and support services charges should be considered and our recommendation would be that these charges are conducted on an arm's length basis.

Capital Expenditure and infrastructure charges

Where the Energy Co. incurs capital expenditure and infrastructure charges, it is likely that these charges will be subject to VAT at the standard rate. The Energy Co. should be entitled to reclaim any VAT charged, however it will need to be able to pay the VAT to its suppliers and to be able to cash flow the VAT until such time as the VAT can be reclaimed through its VAT return.

Where the Energy Co. makes onward supplies of the capital expenditure and infrastructure costs, for example in relation to property assets, it will be

important to ensure that its onward supplies are taxable for VAT purposes. This may require consideration of the option to tax in order to protect the Energy Co.'s VAT recovery position.

Tax relief will be available for qualifying capital expenditure and infrastructure costs where these are used in the course of a trade carried on by the company.

Provision of energy savings materials

Where the Energy Co. provides and installs energy savings materials to its customers, it should be possible to apply the reduced rate of VAT to qualifying works and materials. Please note, the supply of energy-saving materials without installing them remains standard rated for VAT purposes.

Renewable Obligations Certificates and Levy Exemption Certificates

The Energy Co., as a licensed supplier should consider its obligations in relation to sourcing an increasing proportion of its electricity from renewable sources.

- ▶ ROCs are issued as evidence that electricity from an eligible renewable source has been supplied to customers in the UK. ROCs are sold with the electricity to a supplier. The supplier is then able to use the certificate to demonstrate progress towards meeting its renewable energy obligations. ROCs can also be traded separately from electricity. As an alternative to supplying renewable energy, suppliers may discharge all or part of their obligations by buying ROCs from generators or another party and/or paying a “buyout” price to Ofgem.
- ▶ Climate change levy (CCL) is a single-stage non-deductible tax with environmental objectives that is charged on supplies of electricity and gas to industrial and commercial users. VAT is chargeable on the CCL inclusive value of a supply. LECs allow commercial consumers to avoid paying CCL by acquiring LECs from renewable energy suppliers.

Conclusion

Further analysis will be undertaken at OBC to determine the specific tax implications of the preferred delivery vehicle and operating model.

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