



Group Principal Risks Report

June 2015



5.	Commodity Prices
7.	Energy Affordability
8.	Funding Shortfall
11.	Human and Relationship Capital Management
12.	Industry and Company Transformation
15.	Infrastructure Failure
17.	Major Projects Quality
18.	Pensions Liabilities
21.	Political and Regulatory Change
22.	Safety and Environmental Management



Introduction

This report has been produced following extensive engagement with colleagues from across the SSE Group. The following reflects the risks which we feel have the potential to threaten SSE's business model, future performance, solvency or liquidity. For further information on the development of this report see SSE's Annual Report and Accounts 2015 available at sse.com


It should be noted that risks which are not currently known to us, or risks which are currently deemed to be of lower significance, can also impact on the business either as a consequence of an individual event or due to a series of related incidents.

Further, whilst the report highlights key mitigations against each of the risks, it does not make judgement on the overall effectiveness of these. SSE continues to improve the measures already in place and explore the development of additional controls for each of the Principal Risks.

In addition to direct impacts, SSE's Principal Risks can also pose a significant threat to its reputation, affecting the relationship with customers, investors, regulators and other key stakeholders. To achieve success as a long-term sustainable business, maintaining a good reputation and a positive relationship with these groups is critical and any damage to SSE's reputation is highly likely to be reflected in its performance.

SSE's core purpose is to provide the energy people need in a reliable and sustainable way. In achieving this it seeks to be responsible in everything that it does, including the efficient and effective management of risks.





**A significant proportion of SSE's
profitability is dependent on
the successful management of
commodity exposures.**

Commodity Prices

What is the risk?

Exposures to the physical volume and price risk of certain commodities – including electricity, gas, coal, CO₂ emissions permits and oil – arise from two main sources.

Firstly, there is a requirement to match volumes of purchased gas and electricity with customer demand. This exposure is influenced by a number of factors including customer numbers, the weather and changes in energy use.

In addition, exposures arise due to the difference in the cost of fuel and other commodities required for generation, and the electricity revenue derived from SSE's long-life generation asset investments.

A significant proportion of SSE's profitability, including return on investment in power generation assets as well as the ability to price competitively in the retail market, is dependent on the successful

management of these exposures. A sub-optimal trading strategy could lead to significant financial loss, loss of customers and increased political scrutiny.

The markets for these commodities are driven by global supply and demand, itself influenced by a number of complexities including geopolitical events, global economic growth, the weather and technology. The global commodity price makes up a significant part of the energy cost to the customer. Increasing commodity prices affect the overall affordability of energy and can have an impact on demand and customers' ability to pay.

How does SSE mitigate it?

- SSE uses Value at Risk (VaR) measures to monitor and control exposures to commodity price and volume. Trading limits are set by the Board and managed through the Risk and Trading Committee (RTC).
- Commodity positions are assessed on a daily basis by an independent Risk Management team who also manage breaches of limits according to a defined escalation and governance process.
- The RTC takes an active role in approving trading/hedging strategies and maintains a framework of individual trader limits, counter-party credit limits and cumulative trading limits.
- SSE's Capital Allocation Group ensures – and makes recommendations to the Executive Committee on – the efficient use and allocation of capital in the Wholesale business. Decisions to invest in long term generation assets are taken by the Board and consider a number of potential commodity price scenarios which are developed using internal and third party expertise.
- SSE has an Energy Economics department which provides commodity price forecasts which are used to inform decisions on trading strategy and asset investment.
- SSE works to develop innovative tariff structures, underpinned by a commodity trading strategy, aimed at providing customers with prices which are both competitive and stable.



**Affordability is at the heart
of everything we do**

Energy Affordability

What is the risk?

Energy costs make up around 5% of the average UK household expenditure, a figure which for the poorest fifth of households rises to 11% ([2012 ONS figures](#)). The total cost of energy is driven by a number of factors, including commodity costs, infrastructure costs, energy sector overheads and Government levies aimed at supporting measures for the reduction of carbon emissions and increased energy efficiency.

SSE is involved in all points of the value chain for energy in the UK and Ireland including production, storage, transmission, distribution, supply and related services. The decisions SSE takes in delivering these investments and services contribute to the overall cost

of energy to the consumer. SSE is equally committed to keeping the cost of energy as affordable as possible, both now and over the long term, as it is to delivering the standard of service required by a modern economy.

If the cost of conventional energy production does not remain competitive, there is likely to be increasing pressure from alternative sources of energy as well as public and political pressure. This could have a significant effect on the long term performance of all areas of the business with knock on effects to both demand and the customers' ability to pay.

How does SSE mitigate it?

- SSE works to develop innovative tariff structures, underpinned by a commodity trading strategy, aimed at providing customers with prices which are both competitive and stable.
- SSE actively argues for political action to drive down non-commodity related costs which make up a significant part of the average bill, including government-sponsored environmental and social policies and its smart meter roll-out costs. To protect customers, particularly the most vulnerable, SSE believes that these policies should be funded through general taxation and be related to people's ability to pay.
- [SSE's customer charter](#) sets out the steps it takes to support customers who are having difficulty paying their bills, encouraging early engagement to work together on an arrangement that allows payments to be sensibly managed.
- SSE's generation business operates a balanced portfolio of assets which reduces the reliance on a single technology or fuel type in turn helping to reduce volatility in the overall costs of energy.
- Through the Distribution Price Control Review process, SSE has proposed significant reductions in the distribution component of electricity bills and improvements in the standard of service that customers will receive from their network operators. Ofgem's final determinations propose a real reduction in the distribution share of the average household bill which is a significant contributor to the overall cost of energy.

Funding Shortfall

What is the risk?

SSE's policy is to ensure that it has at all times funds available to meet its liabilities when these fall due under both normal and stressed conditions, without incurring unacceptable costs or risking damage to its reputation.

SSE typically funds refinancing and future borrowing requirements by issuing senior bonds and hybrid capital. In addition, it utilises bank borrowings, index-linked loans and private placements. If these sources of funding were unavailable to meet either increases

in overall borrowing requirements or to refinance maturing debt it could impact on SSE's ability to meet its commitments and in turn could force a curtailment of its capital investment programme, adversely impact credit ratings and ultimately affect SSE's ability to trade.

How does SSE mitigate it?

- SSE's approach to managing liquidity is to ensure that the Group has available committed borrowings and facilities equal to at least 105% of forecast borrowings over a rolling 6 month period.
- This approach is informed by detailed medium to long term cash forecasting which takes into account anticipated changes in business activity, markets and funding position.
- The Board, through the Audit Committee, considers the medium term funding plan including a detailed market update report in May each year.
- SSE maintains a group of relationship banks who support the company's financing activities through their ongoing participation in committed lending facilities which currently total £1.5bn.
- SSE seeks to maintain a diversified portfolio of debt to avoid overreliance on any one market. This allows it to build relationships with, and create competition between, debt providers.
- The Board's policy is to maintain a strong balance sheet and credit rating to support investor, counter-party and market confidence and to underpin the future development of the Group. The current average age of SSE's debt is around 10 years.



**The Group relies on the ongoing
availability of capital to meet current
and future obligations**



**The actions of SSE's people
influence the relationships it
has with customers and other
stakeholders**

Human and Relationship Capital Management

What is the risk?

SSE's people are one of its most valuable assets, playing a major part in the continued success of the business and it is those people who will deliver the business transformation critical to delivering on strategy. The actions of SSE's people influence the relationship it has with customers as well as the wider reputation of the business, both of which are central to SSE's differentiation in a competitive market.

There is increasing competition for skilled individuals, both within the energy sector and increasingly from other industries. If SSE cannot retain, attract and develop diverse talent, it will have an impact on both the development plans for the business and the continuity of existing operations. Poorly executed knowledge transfer between colleagues, particularly in parts of the business with an ageing demographic, could lead to reduced performance and may threaten SSE's plans for improvement.

Everyone at SSE is expected to comply with legislation, regulation and internal policy, including the SSESET of values, and it is important that everyone is responsible and acts with integrity at all times. The current pace of political and regulatory change, combined with the inherent complexity of SSE's activities, make it increasingly important that everyone at SSE is able to readily question the status quo and always strive for continuous improvement. In many cases SSE's activities involve being welcomed into customers' homes and afforded a level of trust, something that it takes very seriously.

There are certain roles in which misjudged or malicious behaviour could lead to significant financial impact or a loss in investor confidence, particularly in energy portfolio management and in passing significant accounting judgements.

How does SSE mitigate it?

- SSE looks to employ, train, develop and retain a diverse and talented workforce and provide them with the support they need to deliver business objectives in a responsible way.
- SSE's business leaders are expected to undertake regular succession planning reviews. At a Group level, SSE continues to develop its approach to the management of talent, identifying the current depth across the organisation and looking at strategies to enhance this. Currently employing around 650 trainees across the business, SSE is an active member of the National Skills Academy for Power, an industry joint training and skills development group which develops common standards and attraction strategies for key energy sector roles.
- SSE has strong governance systems in place which minimise the potential for malicious activity, including independent monitoring of compliance and trading activity, segregation of duties, and robust hiring and performance management processes.
- SSE has a Whistleblowing policy which allows anyone to report any suspicions they have of any wrongdoing.
- The Audit Committee reviews all key accounting judgements made as part of the preparation of the Annual Report and Accounts.

Industry and Company Transformation

What is the risk?

The energy sector is undergoing constant technological improvement and political and regulatory change. It is important that SSE is able to stay at the forefront of the industry by identifying emerging trends, developing strategies to exploit competitive opportunities and question the status quo, striving for continuous improvement in all areas of activity.

In Retail markets, competitive pressure means a failure to keep up with fast-developing customer needs and new technologies could reduce SSE's market share and adversely affect service levels to customers. The advent of smart metering and the changing needs of the customer require a reorganisation of people, processes and supporting systems.

In the Networks business, SSE has proposed significant reductions in overall cost and improvements in the standard of service that customers can expect to receive. To achieve this, it needs to deliver major cost efficiencies and improvements in customer service. Longer term, any large-scale adoption of smaller-scale distributed (local) generation could result in increased pressure on revenues and overheads which may adversely affect return on investment.

In the GB generation market, it will be critical to understand and adopt the latest, most efficient technologies to maximise competitiveness for revenue support payments. An inability to do so could pose a

threat to SSE's capital investment plans and threaten its position in the market as a significant electricity generator.

SSE's Enterprise business was created to integrate expertise in contracting, lighting services, utility solutions, telecoms and business relationship management, forming a new standalone business-to-business arm of SSE.

The projects to deliver these business transformations are large and complex. It is vital that SSE successfully delivers these in order to give customers the services they require whilst maintaining an efficient cost to serve. Failure to do this could result in falling sales and customer numbers due to a lack of price competitiveness and a poor reputation for service. Poor service standards would in turn impact on revenues as well as damaging SSE's relationship with customers, Regulators and other key stakeholders.

These projects will draw on resources from across SSE and poor management of these resources, poor integration or inadequate scoping of project requirements and benefits could impact on business as usual activities, increase project costs and adversely affect current service standards.

How does SSE mitigate it?

- SSE continues to monitor and engage with both industry and the supply chain on developments in key product areas.
- SSE's Networks Division has a dedicated Future Networks team who primarily look at incremental technologies aimed at increasing the reliability and efficiency of network assets.
- SSE has created a Transformation Governance Framework. Building on the success of its Large Capital Projects Framework, this provides a consistent process and tool-set to manage change within the organisation from first principles to benefit realisation.
- SSE continues to develop the strategy setting process to ensure it considers a wide range of possible directions for the energy sector and the products and services that it provides.



It is important that SSE is able to stay at the forefront of the industry by identifying emerging trends and developing strategies to exploit competitive opportunities

A decorative graphic consisting of several thick, flowing bands of color. The bands are primarily shades of green and blue, ranging from light lime green to dark forest green and navy blue. They originate from the top left and curve downwards and to the right, creating a sense of movement and depth. The bands are layered, with some overlapping others, and they taper off towards the bottom right corner.

**SSE is reliant on and manages
critical IT and electricity network
infrastructure**

Infrastructure Failure

What is the risk?

SSE is reliant on a number of key IT systems to support ongoing operations and cash flow. In particular the customer management system, the main trading support systems and real-time network management systems are critical. A loss of any of these systems could be caused by malicious activity, software or hardware issues including telecoms network connectivity and power supply issues to data centres, or poor operational performance. Interruption of service or compromise of these systems for any reason could significantly affect the service levels provided to customers, could affect operation of the electricity network, compromise sensitive customer

data, divert resource from the business as contingency plans are implemented and in some cases may affect a material proportion of the Group's cash flow.

SSE's electricity network is one of the UK's critical national infrastructure assets, central to the functioning of a modern economy. Ensuring the security of this asset is vital as is its safe, efficient, reliable and compliant operation in order to maintain the confidence of Regulators, politicians, customers, investors, and ultimately to protect SSE's licences to operate.

How does SSE mitigate it?

- Business Units and IT Service Delivery Teams work together to agree appropriate service level agreements for business critical services. Operational Key Performance Indicators (KPIs), are monitored and any incidents are reported and tracked.
- Key technology and infrastructure risks are incorporated into the design of systems and are regularly appraised by IT with risk mitigation plans recommended.
- Technology reviews are undertaken to evaluate software and hardware longevity and the need for any additional resilience planning.
- SSE conducts regular internal and third party testing of the security of the IT network and systems.
- SSE is an active member of a number of security forums including the Centre for the Protection of National Infrastructure. Where sites are designated critical to national infrastructure, SSE has an enhanced level of security in place, monitored by a dedicated NSI gold registered facility.
- The Group has crisis management and business continuity plans in place which are designed for the management of, and recovery from, any interruption events.



**Ensuring high quality standards
in Major Capital Projects is critical
to SSE delivering a return on
investment**

Major Projects Quality

What is the risk?

SSE continues to deliver its capital investment programme with a number of ongoing construction and IT projects nearing completion and its single biggest construction project, the [Caithness-Moray high voltage transmission link](#), now underway.

It is critical that these projects are delivered on time and on budget, supported by its Large Capital Projects Governance Framework. In addition, SSE needs to ensure that projects are built to a high quality standard as they generally have an economic life of between 15 and 30 years and in many cases longer.

SSE will typically manage the development process and organise the delivery of the project by 3rd party contractors, taking a pro-active oversight role during the construction phase. Whilst this model ensures that

the correct skills are leveraged, SSE has experienced supplier failures in the past most notably in terms of quality control. Whilst contractual warranties will cover the faulty components, there is often a significant unrecoverable cost associated with these events in addition to potential impacts to the service SSE can provide to customers. Added to this, any quality defects may not show up until sometime after the construction of an asset resulting in an expensive and disruptive process of recovery.

How does SSE mitigate it?

- SSE has a Large Capital Projects Governance framework in place which ensures a consistent approach to project development and delivery and includes a statement of Supplier Quality Requirements.
- Any main contract suppliers are subject to a number of verification processes which include quality assessments.
- SSE's standard practice is to ensure it has the contractual right to inspect any manufacturing facility, be present at all tests and inspections and require the supplier to provide verification of various criteria including the origin and history of materials used and the competency of the workforce.
- In major projects, SSE generally manages the insurance placement by organising owner controlled insurance. This allows it to have greater control and flexibility over the provisions in place. SSE also sees the insurance market as an important source of information on the reliability of technology and uses this to inform the design process.
- Once new assets are commissioned, SSE's dedicated Engineering Centre of Excellence monitors the operational performance of assets to provide early visibility of any significant issues.
- Strategic spares, agreed in conjunction with the suppliers, operators and subject matter experts, are in place to mitigate the impact of any quality issues.

Pension Liabilities

What is the risk?

SSE operates defined benefit pension schemes. At present, in aggregate, there is an actuarial deficit between the value of the projected liabilities of these schemes and the value of the assets that they hold. The deficit can be affected by a number of factors including asset volatility, changes in bond yields, fluctuations in interest rates and inflation, and changes in the life expectancy of scheme members.

An increase in the deficit may require SSE to increase

the amount of cash contributions payable to these schemes, resulting in a reduction in the amount available to satisfy its other obligations or service future growth.

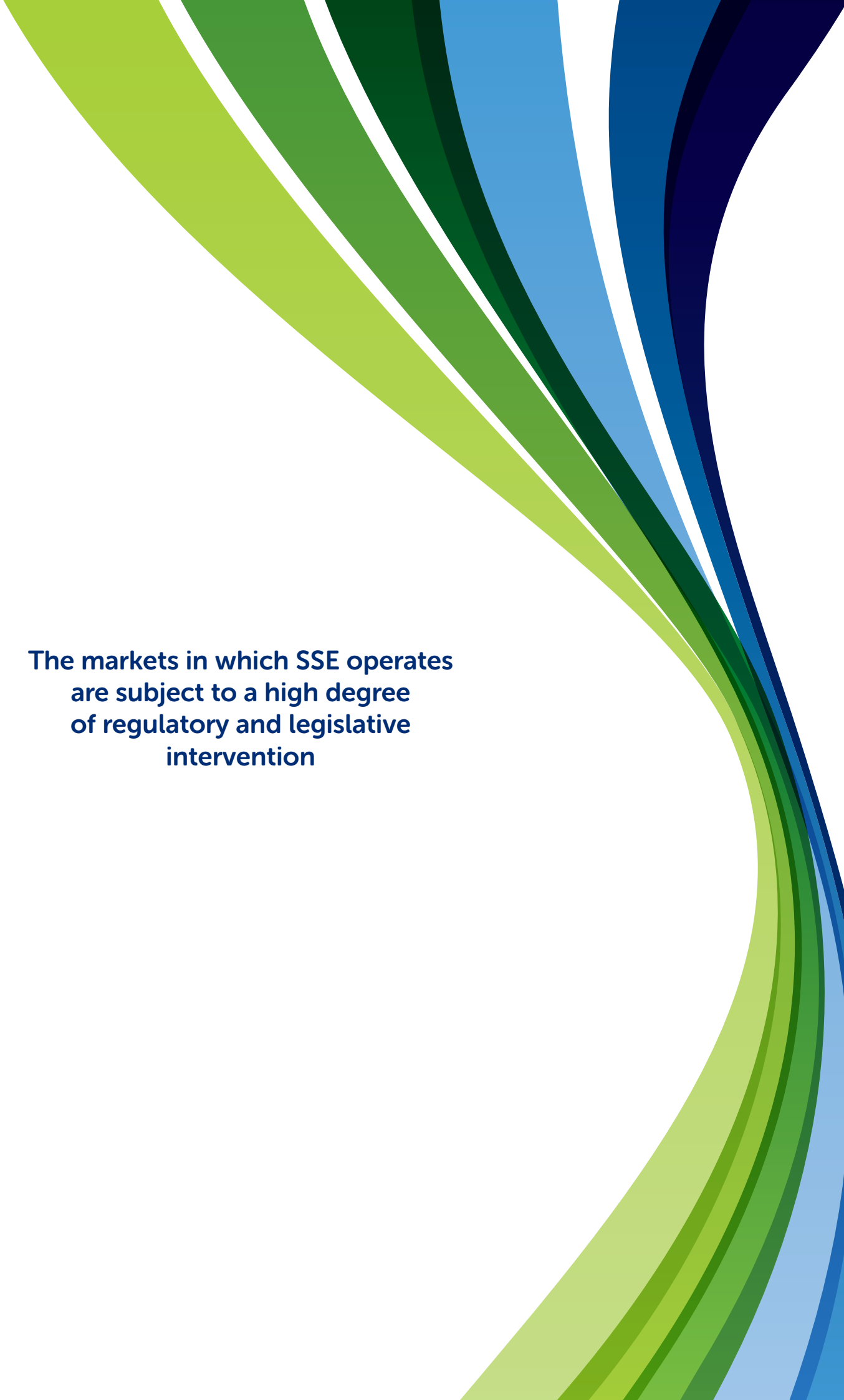
A full update on the position of the schemes is included in note 30 to the [Annual Report and Accounts](#).

How does SSE mitigate it?

- Each defined benefit scheme has a Board of Trustees which acts independently of the Group.
- The schemes each have investment advisors in place who have developed road-maps with the intention of the schemes becoming fully funded (ie no longer reliant on SSE), within twenty years.
- SSE has a Pensions Scheme Committee (PSC) chaired by SSE's Finance Director which meets quarterly. The PSC exists to ensure that SSE's approach to the management of its pension scheme obligations is fair and consistent. The PSC is attended by the Chairmen of the Southern Electric, Scottish Hydro-Electric and Scotia Gas Networks pension schemes, as well as senior company appointed trustees and managers from SSE's in-house Pensions department.



**SSE operates a number of defined
benefit pension schemes**



**The markets in which SSE operates
are subject to a high degree
of regulatory and legislative
intervention**

Political and Regulatory Change

What is the risk?

The markets in which SSE operates are subject to a high degree of regulatory and legislative intervention at both domestic and EU level. This legal framework can change explicitly with the introduction of new or revised legislation, or indirectly due to evolving interpretation and legal precedent.

Changes, either explicit or indirect, can lead to additional reporting requirements, the creation of new products or market structures and can have a significant effect on the profitability of SSE's asset base. Any such changes may require amendments to SSE's policies, procedures and operating practices and any failure to act and maintain compliance could result in regulatory action, damage to SSE's reputation and impact upon its operations.

The pace of change in, as well as the complexity of, the energy sector is increasing; following the progressive implementation of electricity market reform, the GB market is the subject of investigation by the Competition and Markets Authority (CMA) which is

due to conclude at the end of 2015 and which could result in further significant changes to the structure of the market.

Energy policy and the legislation which may result from manifesto policies was a key focus in the run up to the 2015 UK General Election. Whilst it will take some time to become clear, any ongoing ambiguity with regard to the market and its framework makes sustainable long-term strategy planning more challenging and can have an impact on investor confidence.

In addition to energy specific measures, SSE must also understand and comply with consumer, financial and health and safety legislation and regulation, amongst others.

How does SSE mitigate it?

- SSE has dedicated Corporate Affairs, Regulation, Legal and Compliance departments in place that provide advice to the Wholesale, Networks, Retail and Enterprise businesses on the interpretation of political and regulatory changes and take the lead in engagement with regulators, politicians, officials and other stakeholders.
- There is regular engagement with the Board and Executive Committee on political and regulatory developments which may impact on SSE's operations or strategy.
- SSE takes a pro-active role in seeking to address sector-wide issues, as evidenced by the publication of its manifesto, "[Proposals to deliver affordable, secure and low-carbon energy](#)" which set out SSE's recommendations to ensure a sustainable energy market in the future.
- SSE has a dedicated CMA project team, to manage the high volume of information gathering and analysis required to engage with the Authority and support its investigations. This team draws on expertise from across SSE and will play a key role in ensuring it is able to quickly and effectively integrate the investigation's outcome into its operations and strategy.
- SSE actively argues for political action to drive down non-commodity related costs which make up a significant part of the average customer energy bill, including government-sponsored environmental and social policies and its smart meter roll-out costs. To protect customers, particularly the most vulnerable, SSE believes these policies should be funded through general taxation and related to people's ability to pay.

Safety and Environmental Management

What is the risk?

SSE's operations are in many cases undertaken in hazardous environments. It constructs, maintains and operates complex assets including hydro dams, power stations and major gas storage facilities. These assets require the storage of a significant volume of water, fuel, oil and other chemicals, and any uncontrolled release of these could result in injury to staff, contractors or members of the public and damage to the environment.

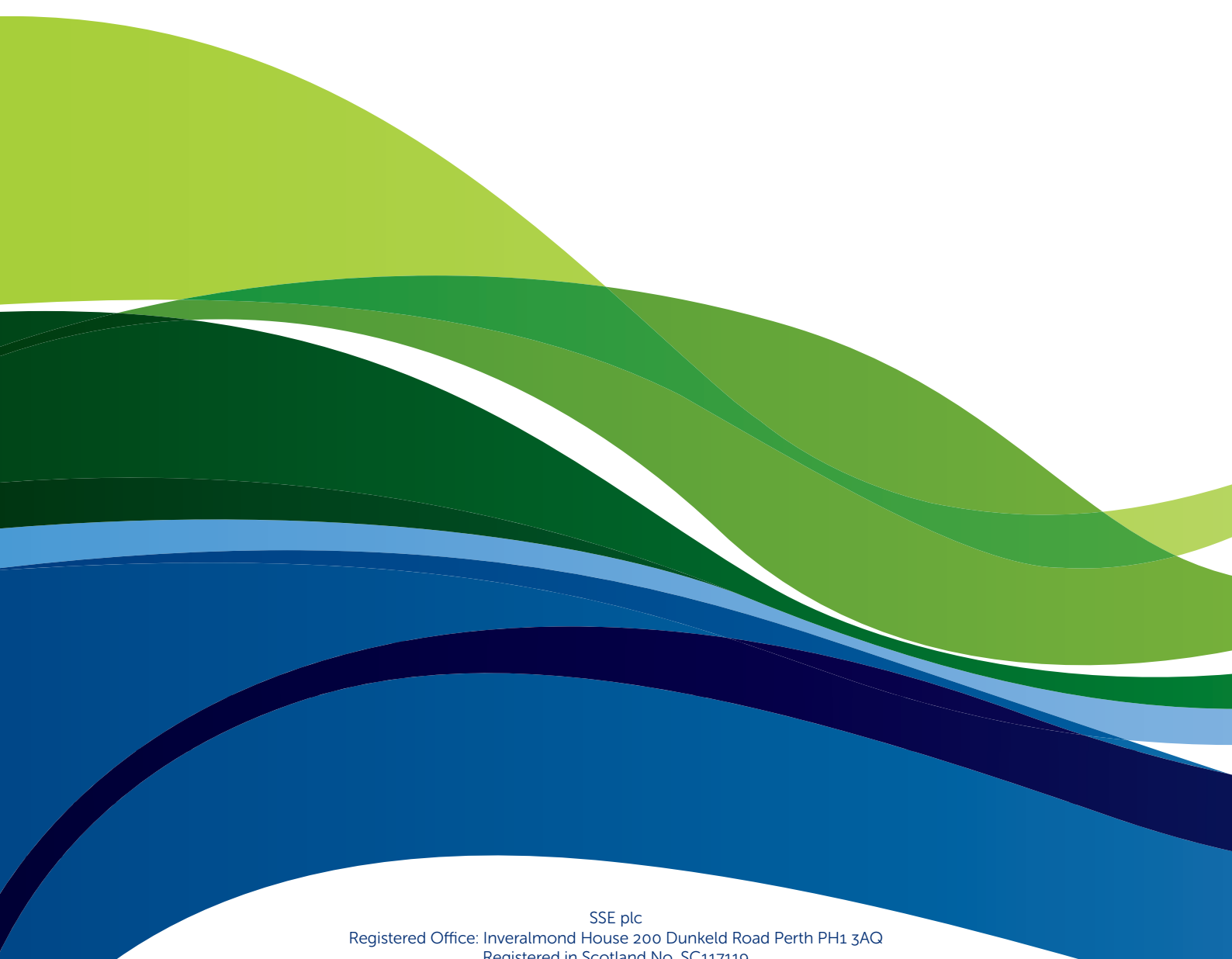
SSE also owns interests in offshore oil and gas exploration and production assets, the operation of which is undertaken by partners who are proven and approved industry operators. SSE's ownership interest means it has a responsibility to ensure a high safety standard is adopted in order to prevent incidents and to protect its interests and liabilities more generally.

How does SSE mitigate it?

- Safety is the Group's number one value and is overseen by the Safety, Health and Environment Committee and supported by the Board's Safety Health and Environment Advisory Committee.
- SSE's dedicated Engineering Centre of Excellence reviews and develops plans to ensure the integrity of its assets is maintained and is independent of the operations teams.
- SSE undertakes regular hazard studies on key areas of exposure with support and oversight provided by the Group Safety, Health and Environment team.
- For exploration and production assets offshore where SSE is not the operator, there are a number of assurance measures in place to ensure that the proven and approved operator partners maintain and adopt high standards for their safe management and operation. This includes regular engagement across all disciplines, with an emphasis on safety and technical assurance facilitated by audits and verification using both internal and third party resources.
- The Group has crisis management and business continuity plans in place, which are designed for the management of, and recovery from, significant safety or environmental interruption events.



SSE's operations are in many cases undertaken in hazardous environments



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