Sustainable by Choice

nationalgrid

Environmental Management System e-Manual

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1. Scope and purpose

This document provides the scope, description and interaction of the main elements of the National Grid Environmental Management System.

The scope of the National Grid ISO 14001 Environmental Management System, which is documented on the ISO 14001 certificate and available, if requested, to the public is: All National Grid UK regulated and non-regulated activities including design, development, construction, maintenance and operation of gas and electricity transmission, National Grid Ventures, corporate and commercial property.

2. Terminology and abbreviations

Term	Definition
CH_4	Methane, a potent greenhouse gas.
Interested Parties	A person or organisation that can affect, be affected by, or perceive themselves to be affected by a decision or activity. Interested parties could include customers, community, suppliers, regulators, non-governmental organisations, investors and/or employees.
LNG	Liquefied Natural Gas.
OFGEM	Office of Gas and Electricity Markets; the Government regulator for gas and electricity.
SF_6	Sulphur Hexafluoride, a gaseous electrical insulator used in switchgear at electricity substations.

3. Versions and updates

Description	Date of revision	Revision Number	Approved By
New SHE Procedure to formalise the Environmental Management System emanual into the SMS. Additions have been made as follows: 2.1 Section on responsibilities updated 2.2 & 2.4 & 2.5 Reference made to Source-Pathway-Receptor model 2.8 Section on document control expanded	June 2010	Rev 1	Steve Wallace, SHEPAG
Updated to provide the scope, a brief description and the interaction of the main elements of the National Grid Environmental Management System	February 2014	Rev 2	Stuart Bailey, Head of Sustainability and Climate Change
Updated to add recently added procedure numbers to the document	December 2015	Rev 3	Stuart Bailey, Head of Sustainability and Climate Change
Updated to new format, review of Gas Distribution amendments and modifications required for the ISO14001:2015 standard	March 2017	Rev 4	Stuart Bailey, Group Head of Environmental Sustainability
Updated to reflect BMS standards and internal issues	August 2018	Rev 5	Steve Thompson, Environment Sustainability Manager

4. Context of the organisation

4.1. Understanding the organisation and its context

National Grid is one of the largest investor-owned utilities focused on transmission and distribution activities in electricity and gas in the UK and US. We play a vital role in connecting millions of people to the energy they use, safely, reliably and efficiently.

We own and manage the grids that connect people to the energy they need, from whatever source. In Great Britain (GB) we run systems that deliver gas and electricity to millions of people, businesses and communities.

We own and operate the high-voltage electricity transmission system in England and Wales. That includes around 7,200 kilometres of overhead line, about 650 kilometres of underground cable and 342 substations.

As Great Britain's System Operator (SO) we make sure gas and electricity is transported safely and efficiently from where it's produced to where it's consumed. We seek to ensure that supply and demand are balanced in real-time and we facilitate the connection of assets to the transmission system.

Our other activities relate to non-regulated businesses and other commercial operations not included within the business segments including: interconnectors; UK-based gas metering activities; UK property management; a UK LNG import terminal; and corporate activities.

The energy landscape in which we operate is undergoing a period of significant change. In 2017, Great Britain achieved the first ever working day without coal power since the Industrial Revolution and broke 13 clean energy records. These milestones illustrate the rate of change.

National Grid plays an important role in the sustainable development of Great Britain's energy sector. Our stakeholders expect us to deliver energy sustainably while balancing that with the need to provide security and affordability. It's National Grid's job to facilitate an energy system that delivers value for consumers and society.

We're developing an operational model that is in harmony with a low-carbon future by ensuring that low-carbon and renewable energy can be connected to the network, thereby significantly reducing the environmental impact of our day-to-day operations.

The UK's commitment to the 2015 Paris Agreement and its long-term objective of a 2050 decarbonised economy has made the transition to a decarbonised energy system essential. National Grid plays a dual role in this challenge:

- as the Transmission Owner (TO) and System Operator (SO), we connect and support the operation and connection of low-carbon energy
- as an infrastructure business, we design, build and manage assets in a sustainable, affordable way while ensuring security of supply.

We also recognise that a sustainable approach can benefit from innovative thinking, so 'leading innovation' is an essential part of our strategy to improve performance.

These can be demonstrated in the development of the National Grid Standards, particularly the Environmental Sustainability Standard, that sits within the National Grid BMS.

National Grid Standards, set out what is important to us and what good looks like, they will focus on the areas of greatest value or highest risk and align to and support our values of ‘Doing the right thing’ and ‘finding a better way’?

The principles of Environmental Sustainability are wholly aligned with ‘Doing the right thing’ and ‘Finding a better way’. Looking for ways of reducing risk, our carbon footprint, resource use and waste produced also help to ensure the future availability of resources, whilst reducing cost to the business.

The new Environmental Sustainability BMS standard enables the business to take the next step from doing the right by ensuring compliance and working on sustainability projects to ensuring sustainability is embedded into business processes and leaders understand their accountabilities

As part of the Business Management System and Environmental Management System National Grid has established an understanding of the important issues that can affect, either positively or negatively, the way National Grid manages its environmental responsibilities. The issues of interest are those that affect National Grid's ability to achieve the strategic objectives which are appropriate to this EMS and that affect National Grid's ability to meet the commitments of it’s Environmental Policy.

The current external factors that may impact or influence the ability of National Grid to achieve the intended outcomes of our environmental management system include:

- The changing portfolio of energy generation, predominantly the move away from baseload and two-shifting generation and towards a more decentralised, intermittent system, and the significant impact that will have on network operations and design, as well as the inherent impact this change in operations will have, for example line losses and visual amenity,
- The changing demand profile of energy use in the UK, the reduction in the morning and evening peaks as consumers spread their usage out by implementing Smart technology and demand side response becomes more prevalent, and the significant impact that will have on network operations i.e. electrification of the UK,
- Environmental and Climatic Change may impact the operations and management of our assets, for example flooding and increasing temperature differentials can impact the operation of our assets and how the surrounding environment interacts with them,
- Changes and developments in technology may have an impact on the operation of the network e.g. ‘Smart’ technology,

- Changes in the Regulatory landscape of environmental policy and regulation may have an impact on the operations and management of the business entity assets,
- Brexit may have an impact on environmental legislation to which we conform as well as the operations of our cross EU enterprises, for example our interconnectors,
- Negative publicity regarding the energy industry and its impact on the environment and therefore any potential publicity or campaigning may lead to a drop in share price and concern amongst markets and investors (affecting interested parties, shareholders, and stakeholders).

Internal issues that may impact National Grids ability to achieve the intended outcomes of the EMS include:

- The standard operation of our networks and other businesses has the potential to have a significant environmental impact, both locally and globally, from Greenhouse Gas emissions (CH_4 and SF_6 losses) and oil losses to large development projects. If not well managed all of these activities have the potential to prevent National Grid from achieving the ambition of being a recognised leader in sustainable energy infrastructure,
- The launch of the refreshed sustainability strategy 'Our Contribution', has refocused the business on the need to integrate sustainable practices into day-to-day business, that reducing carbon, waste and resource use, as well as our impact on the natural environment are all good business practices,
- The recent and ongoing structural changes to the organisation, there is the potential to lose focus on achieving environmental and sustainability objectives and targets,
- The legal separation of the System Operator from the Transmission Owner means that there is significant uncertainty in areas of the business and the potential to lose focus on who is responsible for delivering on objectives and targets,
- Focus on the business purpose and priorities were refined in 2017, looking to focus on delivering for the customer and ensuring smooth business practices to increase efficiency.

4.2. Understanding the needs and expectations of interested parties

Success in achieving our company ambitions demands that we focus on the needs of our stakeholders in everything we do. Stakeholders are active and empowered in the markets we operate in and their expectations are set by comparisons to peer utilities, other companies and organisations that they deal with, and their own expectations.

We must engage more effectively with stakeholders to deliver on their expectations. Failure to meet their requirements will limit our ability to operate and grow in existing markets and could risk existing stakeholders disengaging from us.

To ensure our stakeholder engagement activities are systematically aligned to National Grid's long-term strategy, Policy Review Groups have been established to link businesses' stakeholder engagement priorities to key policy issues that will be used to help shape the debate.

While Corporate Affairs take the lead shaping the debate on major external stakeholder issues, businesses also need to engage with stakeholders on a daily basis in order to deliver on their priorities.

Although there are clear linkages between how we need to engage our customers and our stakeholders, there are also differences in how we need to manage these groups.

In recognition of the importance of this the Stakeholder Engagement Standard has been developed as part of the BMS and is applicable to all in National Grid who engage physically or digitally with stakeholders.

The Stakeholder Engagement Standard requires compliance with 'Our Code of Ethical Business Conduct' which provides mandatory guidance on how we conduct our stakeholder interactions. Supported by this, review of stakeholder engagement best practice has allowed us to develop three core principles that stakeholders can expect from us.

- **Principle 1:** Stakeholder engagement is integral to our governance and will add value to National Grid and its stakeholders by focusing on material issues.
- **Principle 2:** Stakeholder engagement must have a clearly defined scope that creates opportunities for transparent dialogues leading to an agreed decision-making process.
- **Principle 3:** The stakeholder engagement process must be appropriate to the stakeholder and performed in a timely, flexible and responsive manner.

Our promises are that we will:

- listen to our stakeholders' views so we can understand what they need and expect
- proactively engage and build trust through close working relationships based on openness and honesty
- help them understand our business by clearly explaining our perspectives and how these may influence our overall decision-making
- work together to find innovative ways of building a network for the future
- take responsibility for delivering what we say we'll deliver and do even better wherever we can
- act on feedback.

Due to the geographically diverse nature of its activities the National Grid business communicates with a wide range of stakeholders to ensure relevant environmental requirements and concerns are addressed in the way the business carries out its activities.

Liaison with regulators remains a strong focus area. During 2017/18 we have continued to be an active member of the Energy Networks Association Environment Committee which allows us to strengthen our relationship with the Environment Agency, particularly around areas such as Fluid Filled Cables and SF6 management.

As part of supporting and informing the RIIO t2 negotiations, we have undertaken an environment and sustainability joint Electricity and Gas external stakeholder workshop. The stakeholders included representatives from our customers, suppliers and regulators, both OFGEM and Environmental.

Key Stakeholders who have been identified as having an interest in National Grids environmental management performance are outlined in Appendix 1.

4.2.4 Determining compliance obligations

Environmental legislative and other requirements that are applicable to National Grid's activities, products and services are reviewed using the Environmental Aspects Register against applicable environmental legislation.

The identification of applicable legal and other requirements are identified through a variety of sources, which include:

- Governmental bodies;
- Professional bodies;
- Regulatory bodies;
- Industry associations; and
- Stakeholder expectations.

Some identified legal and other requirements may address a range of issues in addition to environmental matters, however, only the sections that relate to National Grid's environmental aspects are referred too.

The identified legal and other requirements are kept in a Legal and Other Requirements Register. In addition, Legal and Other Requirement Profile Pages which summarise the applicable regulatory and other requirements are created and readily available.

To ensure that National Grid keep abreast of new or changes to legislation and/or other requirements relating to the activities, products or services of National Grid a variety of sources, including those mentioned above are used. The 'What's on the Horizon' process or SHE bulletins are used to ensure new or changes to legislation are communicated to the relevant Business Entities impacted.

The Legal and Other Requirements Register and Legal and Other Requirement Profile Pages are reviewed on a 6-monthly basis as well as being updated when new or changes to current legislation and/or other requirements are implemented.

As well as legal requirements, National Grid has set stretching corporate targets around three key areas of environmental sustainability which form our 'other requirements'.

National Grid's environmental sustainability ambition 'Our Contribution' sets out specific and measurable environmental targets. National Grid's focus is on making significant progress in three areas:

1. Our Climate Commitment: We have challenging, long-term GHG reduction targets. By 2050, we have a target to reduce our greenhouse gas emissions by 80% (from a 1990 baseline), with an interim target of 45% reduction by 2020.

2. Responsible Resource Use: Our goal is to re-use or recycle 100% of recovered assets by 2020 and send zero office waste to landfill by 2020 (at our 10 largest owned sites in the UK and US)

3. Caring for the Environment: We have a goal to deliver sustainability action plans at 50 sites by 2050 and to drive Net Gain in environmental value (including biodiversity) on major construction projects by 2020.

With 'Our Contribution', we're working to respond to global environmental and social challenges, minimise risk, and continue to deliver the service our customers rely on. National Grid is accountable for the successful completion of these targets and therefore progress made is communicated annually via the Annual Report and Accounts to make it accessible to all stakeholders interested in the progress made on our targets.

Each business entity has their own division of these targets and is tasked with setting plans on how to achieve them.

5. Leadership

5.1. Leadership and commitment

Commitment, responsiveness and active support is provided by National Grid's Top Management to ensure the success of the Environmental Management System.

The UK Board has overall responsibility for establishing, implementing and maintaining the EMS. It's also responsible for setting objectives for our operations and ensuring that environmental and sustainability matters are integral to how we operate our company.

The Head of Safety, Health and Sustainability (SHS), supports the Board, Executive and UK SHE committees in delivering strategy, setting standards and targets across the company, and making sure the EMS meets the appropriate international standard ISO14001 (2015).

Across the company, SHE committees at executive and business unit level oversee, assure and monitor environmental performance. In the UK, the Executive SEH Committee operates at the highest level. It is a subset of the Board and is the key governance body for environmental management. It meets quarterly and members include the Chairman and CEO.

5.2. Environmental policy

The National Grid Environmental Sustainability Standard acts as the Environmental Policy and provides a framework for managing of the environmental aspects of the past, ongoing and planned activities, products or services of National Grid. It helps set goals to promote continual improvement in environmental performance as well as to protect and enhance the environment, always seeking new ways to lighten the environmental impact of our past, present and future activities.

5.3. Organizational roles, responsibilities and authorities

In order to ensure continual improvement of its environmental performance, general roles, responsibilities and authorities associated with environmental management have been provided in the Resources, Roles and Responsibilities and Authorities Procedure.

Where necessary, roles, responsibilities and authorities that are specific for a particular business entity or where there is interaction between different Business Functions and/or contractors will be agreed, defined and communicated

Essential resources for ensuring the maintenance and continual improvement of the National Grid Environmental Management System are determined and made available by each business entity Management Team.

6. Planning

Planning is critical for determining and taking the actions needed to ensure the environmental management system can achieve its intended outcomes. It is an on-going process which allows the business to establish and implement elements of the EMS and to maintain and improve them. This covers three broad areas:-

- Achieving intended outcomes, including enhancing environmental performance, fulfilling compliance obligations and achieving environmental objectives;
- Preventing or reducing undesired effects, including significant environmental impacts and environmental conditions affecting the organisation; and
- Achieving continual improvement.

The planning process supports the business and allows it to identify and focus its resources in those areas that are most important for protecting the environment. It is also key to assisting the business to ensure it meets its compliance obligations and other environmental policy commitments by establishing and achieving its environmental objectives.

6.1. Actions to address risks and opportunities

6.1.2. Environmental Aspects

National Grid identifies the environmental aspects of its activities in order to control and / or influence their associated environmental impacts, whether they be adverse or beneficial (opportunities).

An assessment is undertaken using the National Grid Environmental Sustainability Standard, legislative and other requirements, normal and abnormal operating conditions, start-up/shutdowns as well as the risks associated with potential emergency situations. This is then used to identify and quantify environmental aspects, their significance and impact for the past, ongoing and planned activities, products or services that National Grid influence or can influence.

The findings of the assessment process provide a basis for National Grid to prioritise. The aspects and risks are rated according to the severity of their potential adverse or beneficial impact to the environment, so that effective steps can be taken to prevent, reduce or enhance that impact.

The identification of aspects, their significance and impact are held in an Environmental Aspect Register which is kept up-to-date and made readily available. A review is undertaken on an annual basis or if change occurs to activities, products, services or legislation, which may affect the aspect(s), risk(s) and/or control measures. Significant changes are communicated internally as appropriate to ensure that effective mitigation steps can be taken throughout the business.

6.1.3 Compliance Obligations

National Grid ensures that through the effective application of its Environmental Management System our compliance obligations are understood and actioned throughout the business.

Through working closely with the affected business entities, compliance obligations are communicated and monitored in a number of ways:

- Management Reviews
- Standard agenda items on business entity environmental meetings
- Environmental engagement visits
- Internal Audit process
- KPI reporting structures

SHS in consultation with the Executive Committee determine which compliance objects are developed into targets, and these are summarised and communicated in the 'Our Contribution' document.

To manage and deliver on compliance obligations that are driven by their risk profile, National Grid develops robust management processes, with defined monitoring and reporting requirements managed through the business entity SHE governance structure.

The Policy, Assurance and Reporting Team within SHS manage a risk register which holds details of all outstanding risks relating to business compliance. A compliance assurance report (CAR) is produced on a quarterly basis highlighting key outstanding issues and this is reviewed and approved by the appropriate manager. Outstanding environmental compliance issues are assessed by the Environmental Operations Manager and actions taken for investigation and resolution.
While these are consistent with the corporate Environmental Management System procedures, they provide specific operational controls for tasks in order to ensure compliance. Being consistent with the corporate Environmental Management System, local procedures provide the basis for local compliance assessments are regularly reviewed and updated periodically based on the risk profile of document.

6.2. Environmental objectives and planning to achieve them

Environmental sustainability objectives and targets are set by National Grid with the intention to drive continual improvement to its environmental performance. There are three different types of objective that could be set in order to achieve this:

- Improvement Target;
- Management Target; or
- Investigation Target.

Objectives and targets help to drive continual improvement in overall environmental performance. However, not all objectives will necessarily need to define specific environmental improvement goals if:

- a significant aspect(s) is being effectively managed, an improvement goal may not be required but rather an objective may be applied
- National Grid or a business entity may not be in a position to implement improvement actions because there is a need to investigate and understand the nature of an aspect or to identify and evaluate improvement options

Corporate environmental objectives shall be set by SHS with each Business Function. These targets will be relevant to the following objectives:

- Principles and commitments in the National Grid Environmental Policy, particularly those relating to climate change objectives, resource efficiency, diversion of waste from landfill and enhancing ecosystems;
- Significant environmental aspects;
- Applicable legal and other requirements;
- Financial, operational and organisational considerations;
- Technological options and feasibility;
- Views of interested parties;
- Possible effects on stakeholder image of National Grid;
- Findings from environmental reviews; and/or
- Other organisational goals.

When planning how to achieve each objective, the business entity, through the development of a management programme, shall determine what will be done, the resources required, responsibilities, monitoring, completion targets and communication. Business entity data shall be fed back into corporate environmental data to allow for reporting, assessment of compliance and continual improvement.

7. Support

7.1. Resources

Essential resources for ensuring the maintenance and continual improvement of the National Grid Environmental Management System are determined and made available by each business entity Management Team.

7.2. Competence

National Grid determines the necessary competence of persons' working under its control or on its behalf to ensure that they are competent on the basis of appropriate education, training and/or experience. Where gaps within training needs exist the applicable actions are taken to ensure the necessary competency is achieved.

Business entities identify the 'roles' within their area that have environmental responsibilities, what those responsibilities are and how the people fulfilling those roles demonstrate competence, with appropriate training identified for people requiring the competence.

7.3. Awareness

In order to raise awareness of environmental management, National Grid ensures that person(s) participating in work under its control are aware of:

- The Environmental Sustainability Standard commitments;
- The significant environmental aspects and related actual or potential impacts associated with their work;
- Their contribution to the effectiveness of the Environmental Management System, including the benefit of improved environmental performance; and
- The implications of not conforming to the set requirements of the Environmental Management System.

This is primarily achieved via a general environmental awareness training package hosted by The Academy which is undertaken by all staff, as well as more targeted training for those employees with specific environmental responsibilities.

7.4. Communication

National Grid communicates internally among its various business entity levels, via a number of channels that include:

- Infonet;

- Team talk articles;
- SHE Bulletins; as well as,
- Ad hoc presentations, Stand Down days and conferences.

In addition, to our own communications, National Grid encourages and considers initiatives/best practices by persons working for or on its behalf that can contribute to the improvement of the EMS.

National Grid ensures that relevant communication(s) from external interested parties are responded to as appropriate. External contact made by enforcing authorities is captured via the Enforcement Agency Contact database, external communications received by interested parties, other than enforcing authorities, is captured along with the response being retained.

National Grid has been designated as a public authority by the Information Commissioners Office and is therefore required to respond to Environmental Information Requests under the Environmental Information Requests (EIR) Regulations.

Environmental Performance, including information relating to the Environmental Management System is communicated to internal and external interested parties on an annual basis via the National Grid external website.

7.5. Documented information

Environmental management procedures are produced and controlled under The Control of National Grid SHE Standards.

8. Operation

8.1. Operational planning and control

Through the identification of applicable legal and other requirements along with its significant aspects, National Grid have established, implemented and maintain documented environmental procedures to control situations where an absence of such could lead to deviation from the National Grid Environmental Policy, objectives or legal and other requirements.

National Grid sets the standard for outsourced processes to ensure that the requirements of its Environmental Management System are met. However, the implementation of environmental management is required by contractors etc. who undertake the outsourced processes.

The Environmental Operations Team ensure the below list of documented Corporate Operational Environmental Procedures are kept up-to-date, with Business Functions holding responsibility for the establishment, implementation and maintenance of specific Environmental Procedures relevant to themselves.

Procedure Number	Title
NGUK/SHE/200	Waste and Resources
NGUK/SHE/201	Water and Effluent Discharges
NGUK/SHE/202	Energy and Water Resources Management
NGUK/SHE/204	Management of Fluid-Filled Cables
NGUK/SHE/205	Land Management and Biodiversity
NGUK/SHE/206	Management of Potentially Contaminated Land
NGUK/SHE/207	SF_6 Management and Usage Monitoring
NGUK/SHE/209	Use of Hazardous Substances
NGUK/SHE/210	Management of Emissions to Air
NGUK/SHE/217	Management of Environmental Noise, Nuisance and Complaints

The management of changes to the listed above environmental procedures is provided in The Control of National Grid SHE Standards.

8.2. Emergency preparedness and response

National Grid has identified potential emergency situations and incidents that could have an impact on the environment and how they will be responded too. The identified resources and the Emergency Preparedness and Response Plan, which are appropriate to the magnitude of the emergency or incident, are provided for controlling actual or potential situation or accidents to prevent or mitigate the impact to the environment.

National Grid ensures periodical testing of the Emergency Preparedness and Response Plan is undertaken along with a review where applicable after:

- An occurrence of an incident;
- An emergency situation; or
- A test.

Documented up-to-date Emergency Preparedness and Response Plan(s) and information relating to emergency preparedness and response testing is retained at a site level.

9. Performance evaluation

9.1. Monitoring, measurement, analysis and evaluation

To ensure that our environmental performance is actively monitored and managed, we undertake several layers of performance evaluation and reporting.

Internally we have governance structures in place for reporting our environmental performance up to our executive committee that include our most significant environmental incidents, waste and resource management performance and greenhouse gas emissions.

As part of operating responsibly, National Grid also reports our environmental performance open and honestly externally. Our external reporting includes:

- Landfill Tax expenditure and monitoring in the Annual Accounting Reports
- General environmental performance on our external website
- Responding to Environmental Information Regulations requests
- CDP reporting

At an operational National Grid has embarked on a Performance Excellence (PEx) transition, whereby we drive performance improvements and efficiencies whilst eliminating the waste in everything we do. PEx is built around the 'Plan-Do-Check-Act' principle found within ISO 14001 and it provides a clear line of sight between the objectives and targets set at board level down to the operations we undertake.

PEx ensures that all areas within the business use frequent KPI's to track performance, identify blockers and implement remedies to remove these blockers. Within SHS, each 'team' conducts a performance 'hub', with a direct feed for successes and blockers into the SHS leadership team 'hub'. This enables persistent or higher level issues to be raised efficiently to the appropriate level within the business for close out, with the Head of SHS taking the necessary action and information to UKSHE where appropriate.

Each business entity within National Grid has set a series of performance indicators to manage on through their PEx process, which include:

- The key characteristics of its operation that could have a significant environmental impact;
- The key characteristics necessary to assure compliance; and
- Risks and opportunities.

Environmental performance data is also monitored as per our environmental performance procedure and based on a number of factors including:

- Operations that can have a significant environmental impact;
- Legal and other requirements;
- Operational control measures; and
- Progression to achieving National Grid and business entity set objectives.

9.2. Internal audit

National Grid adopts a three tier approach to the assessment of its Environmental Management System. On a cyclical basis Corporate Audit conduct a 3rd line of defence assurance programme which take into consideration:

- The conformance of the National Grid environmental management system to the clauses of the ISO 14001 Standard;
- Key environmental processes; and
- Results of previous environmental audits.

Each Business Assurance Function conducts an environmental management system 2nd line of defence assurance programme, at suitably planned intervals which take into consideration:

- The implementation of the environmental management system procedures into their line of business;
- Key environmental processes; and
- Results of previous environmental audits.

Results following the Corporate Audit and business entity audits, any findings, both positive and negative, are reported and the findings addressed.

The Environmental Operations Team undertakes focussed engagement visits across the business. These assess site specific performance and provide a wider understanding of compliance issues. While local

compliance feedback is provided to site in the form of assurance reporting, metadata from each Business entity is assessed to provide an indication of wider compliance. These issues are addressed through the relevant business unit environmental liaison groups with support from the Environmental Operations Team.

First line of defence assurance is undertaken at the point of work through National Grid's sensible monitoring process. This requires all aspects of SHE to be managed and assessed based on risk profile during the setting to work process, undertaking operations and the closure of jobs. Each Business Unit will determine the frequency and subject matter for which they will undertake sensible monitoring.

9.3. Management review

Management reviews of the National Grid Environmental Management System are periodically carried out per Business entity and include consideration of the following:

- The status of actions from previous management reviews;
- Changes in external and internal issues that relate to the Environmental Management System:
- Information on National Grid's environmental performance; and
- Opportunities for continual improvement.

Based on the completion of each management review, the outputs include:

- Conclusions on the continuing suitability, adequacy and effectiveness of the Environmental Management System;
- Decisions related to the continual improvement opportunities for environmental performance; and
- Any need for changes to the Environmental Management System, including the Environmental Policy, environmental objectives and other elements consistent with the commitment to continual improvement.

10. Improvement

10.1. Nonconformity and corrective action

National Grid has identified a number of different areas of its Environmental Management System, where nonconformities or potential nonconformities associated with activities, products and services could be raised. The Nonconformity, Corrective Action and Preventative Action Procedure sets out.

The criteria for investigating and determining their cause, taking action to control and correct it/them as applicable, as well as dealing with the consequences which may include the mitigation of adverse environmental impact(s).

10.2. Continual improvement

National Grid will use the environmental management system as a structured framework for continuous improvement.

National Grid will evaluate its environmental performance and that of its management system processes annually to identify opportunities for improvement. The evaluation will involve the review of the root causes of the deficiencies of the management system and the board will be involved directly in this evaluation.

Appendix 1: Key stakeholders:

Political - UK	All Party Parliamentary Groups/Select Committees, BEIS, HMT, Special Advisors, UK Parliament - Commons, UK Parliament - Lords, UK Parliament - Specific MPs, Scottish Parliament, Welsh Government, Mayors, Local Councils
UK Government advisory bodies	Committee on Climate change, NIC
Think Tanks	Policy Exchange, Bright Blue, Dieter Helm, Centre for Policy Studies, Infrastructure Forum,
Political - Europe	European Commission / Parliament
Non Political - Europe	ENSO-G (European Network of Transmission System Operators), CEER (Council of European Energy Regulators), ADER (Agency for the Cooperation of Energy Regulators)
Regulatory	Ofgem, CMA (Competition and Markets Authority), Other economic regulators
Industry bodies	Gas Infrastructure Europe, ENA, Energy UK, Renewables UK
Chartered Institutions	IGEM
Business	CBI, FSB (Federation of Small Businesses)
Infrastructure	Highways England, HS2, Network Rail, MI-ROG, Li-Net
Customers	Shippers, Gas Connection Customers, Gas Distribution Networks, Directly Connected Demand, Gas Interconnectors, Terminal Operators, Energy Suppliers

Supply Chain	Suppliers, Partners, Contractors
Energy Industry	Offshore Gas Companies, Operating Margin Providers, European Networks, European TSO associations
Academics	Universities, UKERC Energy Data Centre
Stakeholder Groups	Stakeholder Advisory Panel (inc CAB?)
Media	Consumer, Trade, Financial
Safety	HSE
Environment	EA, SEPA, NRW, Green Alliance, Friends of the Earth, National Trust, English Heritage, John Muir Trust, CPRE, Sustainability First, WWF, Wildlife Trust, Aldersgate Group, BiTC (Environmental Leaders), Accounting 4 sustainability,
Consumer Groups	Which? Citizens Advice Bureau, Age UK, MEUC (Major Energy Users Councils), EIUG Energy Intensive Users Group)
UK Public	Project communities, Other local communities, Landowners
National Grid Employees	National Grid Board, UK employees, Global employees, System Operator
Trade Unions	Prospect, Unison
Material Shareholders (>1%) Total NG Holding 20.65% (Apr '17)	Capital Research & Management Co. (Global Investors) Legal & General Investment Management Ltd. BlackRock Investment Management (UK) Ltd. The Vanguard Group, Inc. Norges Bank Investment Management BlackRock Advisors (UK) Ltd. BlackRock Fund Advisors Standard Life Investments Ltd. SSgA Funds Management, Inc. Federated Equity Management Company of Pennsylvania