

# Combustion (Power) Sector 2016

## Overview

### Permitted sites



155 regulated sites

Main activities:

59



Compressors & Utility Boilers

57



Gas Turbines, CHP, Engines

23



Power Stations

### Industry facts



159,000 employees



£5.5 billion taxes to government



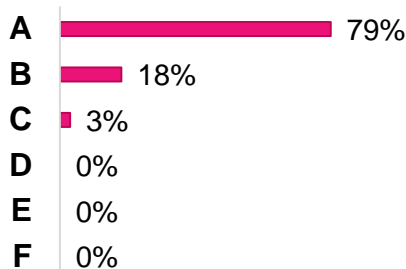
Coal generation has decreased 30% since 2010. In 2016 renewable capacity increased by 24%



UK electricity production increased by 9.6% in 2016

## Performance

### Compliance ratings



No persistently poor performing sites

### Pollution incidents



Serious 1  
Minor 13

### Permit breaches



Serious 0  
Minor 78

## Annual emissions

### Principal emissions to air\*

68.3 million t of **carbon dioxide**  
52,841 t of **nitrogen oxides**  
22,109 t of **sulphur oxides**  
1,791 t of **particulate matter**  
0.6 t of **mercury**

### Waste produced by sites

#### Hazardous



1% recovered  
1% disposed

#### Non-Hazardous



63% recovered  
35% disposed

1 million tonnes

### Industry focus



Of all waste produced is ash\*\* from thermal processes



Of all ash produced is sold under Quality Protocol

\*Above the Pollution Inventory reporting threshold

\*\*Pulverised fuel ash and furnace bottom ash

## Corporate outcomes 2016 to 2020

Our objective is for:

- A cleaner, healthier environment which benefits people and the economy;
- A nation better protected against natural threats and hazards, with strong response and recovery capabilities;
- A higher visibility, stronger partnerships and local choices

Our approach	How we will put this into practice
<p>We will control and reduce the impact of industrial emissions on the environment. We will do this through implementing the Industrial Emissions Directive and following the Large Combustion Plant Best Available Techniques Reference documents (BREFs).</p> <p>We will continue to work within current EU legislation until such time new legislation implemented after the European Union exit.</p>	<p>We will provide data and advice as necessary to support any proposed changes. We will provide comments and guidance on proposals made by other Non Government Organisations and trade associations.</p> <p>We will measure success by monitoring the number of Best Available Techniques (BAT) requirements permit holders have implemented.</p> <p>We will carry out compliance on all our permits to ensure permit holders are complying with their permit conditions.</p> <p>We will continue to work with permit holders and trade associations to keep them updated of any changes and what this will mean for them.</p>
<p>We will protect the environment by permitting diesel engine arrays and data back up plants which currently don't have a permit.</p>	<p>We will offer pre-application advice to those operating without a permit to produce a good quality application. We will ensure the environment is protected by agreeing and implementing controls to meet air quality standards.</p>
<p>We will support sustainable growth of low carbon electricity generation by working with applicants for new combined cycle gas turbines and engines permits. We will provide pre-application advice to potential operators on the process and the standards we require.</p>	<p>We will provide good quality pre-application advice to ensure applicants understand the requirements which results in an excellent permit application.</p> <p>We will process and determine all applications on time within the agreed procedures.</p>
<p>We will support DEFRA with the implementation of the Medium Combustion Plant Directive and the regulation of diesel generators.</p>	<p>We will provide technical and regulatory advice to DEFRA to help support the implementation of the directives. We will be able to keep permit holders and the industry up to date of the requirements at the earliest opportunity.</p>
<p>We will maximise the use of resources by minimising the amount of ash going to landfill and encouraging the recovery of disposed ash.</p>	<p>Review and update the PFA (pulverised fuel ash) protocol, monitor and publicise the amount of ash going to landfill and the amount being recovered. We will highlight the benefits of using recovered ash as a secondary aggregate.</p>
<p>We will make sure permit holders are more resilient to climate change.</p>	<p>We will provide advice and guidance on mitigating the effects of climate change.</p>
<p>We will develop the knowledge and skills of our staff in regulating the power industry.</p>	<p>We will manage our staff and their technical knowledge to ensure they've the necessary technical skills and knowledge to regulate the power industry.</p>
<p>We will implement the outputs of the Strategic Charges Review to ensure we recover the correct charges to fund our regulatory work.</p>	<p>We will keep permit holders and trade associations updated on how they may be affected.</p>
<p>We are transforming our information systems and supporting guidance to be more customer-focused to support businesses and make it as easy as possible for them to do the right thing.</p>	<p>We will listen to those we regulate and communicate clearly with them making our guidance and advice clear and easy to understand. We are digital by default, to make transactions with us as easy as possible, while recognising that some businesses prefer more traditional approaches.</p>

### Data Sources:

The Environment Agency holds records for the number and type of regulated sites, the number of pollution incidents and permit breaches, and the compliance rating for each regulated site. The number of serious pollution incidents include both permitted and unpermitted sites in this sector.

Substance release and waste transfer data is collected from sites that operate under a Part A(1) environmental permit and form part of the Environment Agency's Pollution Inventory. See the [2016 datasets](#) that support this report.

Industry data has been collected from a variety of sources including industry trade organisations and publicly available resources.