

# ENERGY EFFICIENCY POLICY

## Business Scope

Provision of Civil, Electrical and Mechanical Services to the Commercial, Industrial and Public Sectors, within the UK. These services are coordinated through a head office complex and delivered in the field via skilled and trained operators. The laying of Asphalt Mixes by hand and machine in accordance with National Highways Sector Scheme 16.

## General Statement of Intent

Collectively, heating, lighting, hot water, ventilation, cooling and office equipment contribute to the global carbon footprint. The latter (office equipment), is the fastest growing energy user and is expected to rise to.

Reducing energy use makes perfect business sense; it saves money, enhances corporate reputation, reduces carbon emissions and therefore helps everyone in the fight against climate change.

This strategy sets out Northavon Group's pledge to become a carbon neutral organisation. Becoming more energy efficient is the simplest way to do this. In addition, Northavon Group Limited is committed to supporting the carbon neutrality aspirations and objectives of our customer partners.

## Aims

Most businesses rely on a range of office equipment in order to function. From the basic essentials such as computers, monitors, printers, fax machines and photocopiers to projectors, scanners and teleconference facilities. It is widely recognised that these items have become integral to daily working activity, but it is not always appreciated how much these items cost to run.

The purpose of this Office/Site Energy Efficiency Policy is to introduce quick wins and low-cost energy saving opportunities for Northavon Group to instil office etiquette to help the company achieve:

- Costs savings
- Environmental benefits
- Healthier and more productive working conditions
- An enhanced Company image and reputation
- Support the carbon neutrality aspirations and objectives of our customer partners.

Thereby supporting the ambition of Northavon Group to play a leading and innovative role ensuring a shift to a carbon neutral organisation that will have positive impacts on health, expenditure, efficiency and equity.

This policy covers not only the main types of electrical appliances found in offices, but explores other opportunities for more energy efficient offices such as lighting, heating and water usage.

## Objectives:

- To apply the principles of reduce, reuse and recycle to all our behaviours.
- To reduce the amount of energy consumed by Northavon Group.
- To actively raise carbon awareness at every level of the organisation.
- Engage and maximise the potential of employees to contribute to the success of reducing Northavon Group's Carbon Footprint.
- To assist employees to adopt sustainable behaviours into their daily working routines.
- Monitor, review and report on carbon including the development of Northavon Group's Carbon Management Plan 2022-2030.
- To maintain a dedicated, fulltime Northavon Group Renewable Energy Team to provide industry leading advice and solutions to Northavon Group's customers and supply chain with respect to:
  - De-carbonisation and carbon management
  - Carbon Neutrality
  - Renewable energy solutions including photovoltaic and associated technologies

All staff are expected to be compliant with this policy.

## Definitions

### Northavon Group

Northavon Group in this policy refers to all divisions of the business

### Carbon (CO<sub>2</sub>)

Throughout this policy the word carbon is used as a generic term for CO<sub>2</sub>. Carbon is the most prevalent greenhouse gas. CO<sub>2</sub> emissions result from the combustion of fuel from land use changes and from industrial processes. This definition includes both Operational and Embedded carbon dioxide.

### Carbon Dioxide Equivalent (CO<sub>2</sub>e)

There are six main greenhouse gases which cause climate change. Each gas has a different global warming potential. The mass of each gas emitted is commonly translated into a carbon dioxide equivalent (CO<sub>2</sub>e) amount so that the total impact from all sources can be summed to one figure.

### Carbon Footprint

A carbon footprint is a measure of the impact our activities have on the environment, and in particular climate change. It relates to the amount of greenhouse gases produced in our day-to-day lives through burning fossil fuels for electricity, heating and transportation etc. The carbon footprint is a measurement of all greenhouse gases we individually produce and has units of tonnes of carbon dioxide equivalent.

### Climate Change Act

The UK's Climate Change Act (2008) is a legally binding long-term framework to cut carbon emissions and sets legally binding targets to reduce carbon emissions by 80% by 2050 compared to 1990 levels. All organisations will need to demonstrate how this is being measured, monitored and managed.

### GHG

Greenhouse Gases (GHG) include carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. They trap heat in the earth's atmosphere, such that a rise in levels of GHG increases temperature – referred to as the greenhouse effect.

### Good Corporate Citizenship (GCC)

Sustainable development is often referred to as good corporate citizenship (GCC). This means using Northvon Group's resources in ways that benefit rather than damage the social, economic, and physical environment in which we all live.

Behaving as a good corporate citizen can save money, benefit population health and can help reduce health inequalities. Many measures that improve health also contribute to sustainable development and vice versa.

### Climate Change

Climate change refers to a change in the average state of the climate and is now recognised as potentially the most serious threat to life, health, and wellbeing in the 21st Century.

## Responsibilities

The **Group Managing Director** for Northavon Group is ultimately responsible for ensuring that this policy is implemented and effective within Northavon Group.

The Northavon Group **Directors** will ensure the organisation is compliant with all statutory obligations in relation to sustainability and adaptation, and to develop and implement sustainable commissioning practices.

The **Stakeholder Management Group (SMG)** (*Directors and nominated Contract/Project Managers*) will oversee the implementation and monitoring of this policy. Through its activity the SMG aims to continually reduce its carbon

emissions, contribute to reducing the impact of Northavon Groups carbon emissions on climate change, ensure a more sustainable use of its resources, and promote good corporate citizenship.

**Managers** with line management responsibilities within Northavon Group will be responsible for ensuring that the policy is built into local processes and that there is on-going compliance.

**All Staff** at Northavon Group, whether permanent, temporary or contracted are responsible for ensuring that they are aware of the requirements incumbent upon them, and for ensuring they comply with these on a day to day basis; demonstrating exemplar sustainable and low carbon behaviours within the workplace.

**All Staff** shall adhere to the following principles:

#### **Office Equipment:**

Office equipment is the fastest growing energy user in the business world. As most equipment is often left on when not being used, there are opportunities to make significant savings. Switch off all equipment when not in use and enable power down modes. As well as clearly reducing the energy consumption, this will also reduce the heat produced by equipment which in turn, lowers cooling costs. Equipment lifespan will also be extended and maintenance costs and risk of breakdown should be reduced.

#### Computers & Monitors:

- Ensure all monitors are switched to low power mode when users are away from their desk for more than ten minutes.
- Ensure all monitors and base units are switched off at the end of each day.
- Enable any standby features to limit energy consumption on all computers and monitors.

#### Printers & Photocopiers:

- Print hard copies only when absolutely necessary
  - Print in black and white when printing internally.
  - Set default printing to double-sided (duplex).
  - Print in batches where possible to allow the machine to spend more time in standby than idling mode.
  - Encourage staff to use print preview functions for checking layout and style instead of printing.
  - Only switch on printers when required the following day.
  - Ensure all printers are switched off at the end of every day.
- Question printing habits such as printing unnecessary documents and forgetting to collect them from the printer.
- Request staff to think carefully about the number of copies actually required so as to save on energy, paper and waste disposal costs.
- Minimise cooling loads by placing heat emitting equipment such as printers and photocopiers in a separate, naturally-ventilated area with good airflow. This helps minimise air conditioning costs and excessive noise.

#### **Office Lighting:**

Lighting is a significant energy cost in an office and good savings can be achieved through careful consideration of equipment, maintenance and staff habits. There are many simple and inexpensive ways to reduce the energy consumption and costs associated with lighting without compromising health, safety or comfort levels.

- Staff at all levels will be responsible for turning the lights off and making savings.
- Light switches to be clearly labelled (where practicable) to help staff to select only those lights they need.
- Lights in unoccupied areas should be switched off but remember to consider health and safety implications, particularly in corridors and stairwells.
- Natural lighting is essential for providing a pleasant and productive working environment so it is important to keep windows, skylights and light fittings clean.

- Replace dimmed, blackened, flickering or failed lights and fluorescent tubes with tri phosphor coated ones. Tri-phosphor coating provides a more natural, brighter light for the whole life of the tube.
- Upgrade any standard light bulbs to energy saving compact fluorescent lamps (CFLs) which use 75% less energy, produce less unwanted heat and last eight to ten times longer.
- In meeting rooms, toilets and other intermittently visited places, replace standard switches with occupancy sensors to help ensure lights only operate when there is somebody there who requires them. Occupancy sensors are especially useful in toilets and meeting rooms can achieve savings of up to 30% on lighting costs.
- In offices, replace standard switches (where practicable) with light sensors or 'photocells' which can be used to control artificial lighting when there is insufficient natural daylight.

### Heating:

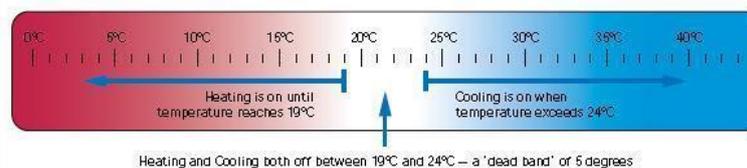
- Office temperature will be set at the recommended temperature for offices and sedentary work of 19°C. This is because internal heat gains from equipment and lighting will bring the temperature up to a level that most workers find comfortable
- Encourage staff to report areas that are too hot, cold or draughty. Look for trends and investigate problem areas. There may be maintenance issues which, if addressed, will make workers less likely to request the use of portable electric heaters and fans or open windows whilst heating or cooling is on. It will also discourage staff from tampering with thermostats and may resolve disagreements.
- Encourage staff to dress appropriately as to feel comfortable within their working environment i.e. can add or remove a sweatshirt/jumper depending on room temperature.
- Check that system operating hours match the times when heating, ventilation and cooling are required staff working patterns and throughout the different seasons i.e. not left on after working hours or set to hot or cold during the working day.

### Ventilation and Air-Conditioning:

- Ensure natural ventilation (making use of windows and doors) is taken advantage of to provide good levels of ventilation prior to mechanical ventilation being switched on.

Ensure that heating systems match operating hours only so as to use the lower external temperatures at night to cool the building ready for the following day, thus delaying the switching on of air conditioning. This is known as 'night cooling'.

- Set a temperature control 'dead band' (a wide gap between the temperatures at which heating and cooling cut in (see Figure below) to ensure heating and cooling do not operate simultaneously. In an office environment, the heating should switch off when a temperature of 19°C has been reached and cooling should not come on until the temperature exceeds 24°C.



### Purchasing:

To ensure that office equipment purchased is both manufactured in a sustainable way and contributes to a reduction in energy costs.

- Northavon Group will acquire energy efficient electrical goods with 'A-energy efficient' ratings and/or accredited to one of the four recognised energy labelling schemes (Appendix 1).
- Look at the environmental criteria of new office supplies and, wherever possible, only buy more environment-friendly products.

- Access the Carbon Trusts Green Business Directory\* when looking to install energy efficiency and renewable energy technologies. This is a market leading scheme for Carbon trust accredited suppliers of high quality energy efficient equipment and renewable technology only.

\*Carbon Trust: <http://www.carbontrust.com/resources/tools/green-business-directory> [Accessed May 5th 2019].

## Development Process

This policy has been developed to support the Northavon Group's approach to Energy Efficiency in line with the following principles.

### **Cost Reductions and Energy Resilience:**

There are important cost savings to be made, initially in the area of energy efficiency. Energy prices are more likely to increase than decrease. All business plans need to be as resilient as possible, preparing for price and availability fluctuations by sourcing and using energy wisely.

### **The Science:**

The existence of climate change is now rarely denied, the debate is more about the degree to which human activity is contributing to it. There is a robust and diverse body of scientific evidence which suggests that the global climatic changes observed over the past 50 years are largely attributable to human activities, predominantly through the burning of fossil fuels, land use changes and agricultural practices, all of which increase atmospheric concentrations of greenhouse gases (GHGs).

### **The Law:**

The Climate Change Act (2008) is a legally binding long-term framework to cut carbon emissions and sets legally binding targets to reduce carbon emissions by 80% by 2050. All organisations will need to demonstrate how this is being measured, monitored and managed.

## APPENDIX 1

### **Energy Label Schemes**

There are four main energy labelling schemes for office equipment and electrical appliances.



### ENERGY STAR

ENERGY STAR is a joint EU and US programme for office equipment helping businesses and individuals protect the environment through energy efficiency. It is widely used and accepted across the commercial sector. ENERGY STAR models have the following benefits:

**Computers** use 70% less electricity than computers without enabled power management

**Monitors** use up to 60% less electricity than standard models

**Printers** use at least 60% less electricity and must automatically enter a lower power setting after a period of inactivity

**Fax machines** use almost 40% less electricity and may have the capability to scan double-sided pages, reducing both copying and paper costs.

For more information go to [www.eu-energystar.org](http://www.eu-energystar.org)



### European Ecolabel Scheme

This scheme promotes products and services with high levels of environmental performance. Electrical equipment has to achieve very high energy efficiency targets. Criteria for specific product groups are based on a 'cradle to grave' assessment of product impacts using life cycle assessment methodology.

More information can be found on <http://europa.eu.int/comm/environment/ecolabel>



### Energy Saving Recommended

Energy Saving Recommended is an Energy Saving Trust initiative backed by the Government. The logo is only found on products that have been carefully selected for their energy efficiency. Although the scheme does not specifically cover office equipment, it does cover other items, such as kitchen appliances and integrated digital televisions, that may be used in offices. It also covers energy saving mains controllers which sense that computers have been turned off and automatically cut the power from computer peripherals. Buy where you see the sign and help save energy, money and the environment.

The Energy Saving Recommended logo is a certification mark.

For more information visit the website [www.est.org.uk/myhome](http://www.est.org.uk/myhome)



### Market Transformation Programme

The Government's Market Transformation Programme (MTP) helps reduce the environmental impact of products across the product life cycle. The Programme does this by collecting information, building evidence and working with industry and other stakeholders to develop a common understanding on how product-related impacts can be mitigated. In the information communications technology (ICT) area, MTP is currently actively involved in the revision of specifications for the EU ENERGY STAR programme which is a voluntary labelling scheme for office equipment.

For further information visit [www.mtprog.com](http://www.mtprog.com)

***This policy is reviewed and revised at regular intervals, not less than annually, to ensure that it is relevant, up to date and fit for purpose.***

Signed:

**Mike Clancy**  
**Group Managing Director**

13 January 2023