

• EVERYONE'S GUIDE TO •

reducing waste *and* saving energy



ENERGY EFFICIENCY



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Why reduce waste and save energy?

An organisation will be more successful if it can better manage its costs through partnerships between its workforce and management. Many costs can be reduced by being more efficient in using resources – reducing the amount of waste generated in the workplace, and becoming more energy efficient. On a personal level we all want to live sustainably so that everyone's quality of life can be maintained. Reducing resource use and moving to a low carbon economy will be essential for this.

Over the past few years, the Amalgamated Engineering and Electrical Union, the Energy Efficiency Best Practice Programme, The Institute of Energy and Envirowise have worked in partnership to introduce ways in which everyone can make a contribution to saving energy and reducing waste in the workplace.

Some of you may have come across some of this material at various workshops. Indeed, it was your comments and suggestions that made this booklet possible.

This booklet is not only about saving money, it suggests ways to better protect the environment both at work and at home. It was developed to help you and your team to look at ways YOU can make a difference to your workplace, to your home and to your community.

Sir Ken Jackson
General Secretary AEEU.

What does this mean for you?

We all like to work in a healthy, efficient and safe workplace.

- *Waste minimisation and energy efficiency can contribute towards this goal.*
- *Reducing waste and saving energy improves efficiency, saves money and improves the business position of your company.*

We all like to be able to make a contribution that matters and has a lasting effect.

- *Everyone can contribute in reducing waste and saving energy. You don't have to be a manager or a scientist to make a difference.*
- *Everything that you use has some impact on the environment, so using less means less impact on the environment.*
- *Everything we do today to reduce our environmental impact will mean a better world for future generations.*
- *Nobody is better placed than the people DOING the work to innovate, and introduce ways of doing things better with less waste.*

What can you do, and where can you do it?

Let's look at where you can make a difference. There are several areas where you can reduce waste and save energy, such as:

- *the material and equipment you use everyday*
e.g. is equipment set up and running properly, are materials being used efficiently?
- *the facilities in the workplace*
e.g. hot water, heating, lighting, are they being used effectively?
- *the workplace, the site and its surroundings*
e.g. waste disposal bins, water drainage, pollution, are you a good neighbour?
- *your home and the community*
e.g. heating, insulation, draught proofing, water use, car journeys, recycling.

The next section is a tool which will help you look at what you do at work, and areas where you can reduce waste and save energy.

Your work and its environmental impacts

On the next pages, there are example sheets and blank ones for you to fill in.

Write down what you do at work and list the equipment that you use and also the raw materials you need. Sometimes the raw materials can be information – on paper, on a screen, or through a phone conversation.

Write down all the products you make, or the services you provide.

Then think about all the things surrounding you that make the work possible – we all use electricity, and how about gas to keep the place warm when you are working, or boilers to produce hot water to wash your hands? What about other materials – paper, wood, plastics, metals and so on. You probably need them all in order to do your work.

This is the starting point of looking at what you do.

- *Look at the way you work – can you spot where the waste is?*
- *Are you using more materials than are absolutely necessary to get the job done?*
- *Is your equipment working/maintained properly?*
- *How about the facilities, are they right for the job?*

Now list all the wastes from your work, not just defects and reworks but things like leaks and breakdowns as well.

Waste is anything that you use but doesn't become part of the final product. Remember - your waste has an environmental impact!

What you do:

Example sheet

What you use:

Equipment

-
-
-

Raw Materials

- Water
-
-

Consumables

- Paper
- Gloves
- Lubricants
- Cleaning Materials
-
-
-

Facilities

- Heating
- Lighting
- Hot water
- Electricity
-
-
-

Other

- Packaging
-
-
-

Products:

-
-

Wastes

- Defects
- Breakdowns
- Off-cuts
- Spoilage
- Packaging
-
-
-

Environmental Impacts

- Solid Wastes
 -
 -
- Liquid waste
 -
 -
- Air pollution
 -
 -

What you do:

What you use:

Equipment

- _____
- _____
- _____

Raw Materials

- _____
- _____
- _____

Consumables

- _____
- _____
- _____
- _____
- _____
- _____
- _____

Facilities

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Other

- _____
- _____
- _____
- _____

Products:

- _____
- _____

Wastes

- _____
- _____
- _____
- _____
- _____
- _____
- _____

Environmental Impacts

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Actions for me at work:

Example sheet

Raw materials I use at work:

- Use both sides of the paper in photocopying and printing
- Put waste in the right bins
- Return unused items to stores
-
-
-
-
-

Facilities I use at work:

- Turn off lights when I leave a room
- Turn off taps fully when I finish washing my hands
- Check if the working area is over/under heated
- Report leaks, blown bulbs
- Use power saving option on computers and monitors
-
-
-
-

Workplace as a good neighbour:

- Are we polluting?
- Do we cause environmental incidents?
-
-
-
-

Actions for me at work:

Raw materials I use at work:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Facilities I use at work:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Workplace as a good neighbour:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Do better work with less waste, less energy

Wherever we work, factories, shops, hospitals, warehouses or schools, we all use some equipment to get the job done.

All equipment can:

- *waste materials;*
- *waste energy.*

To minimise the waste, you can:

- *keep your working area tidy – you can spot problems much more easily;*
- *check that your equipment is set up and working properly;*
- *make sure you know what you are doing – mistakes lead to wasting resources and energy.*

Think about improvements:

- *How can you do it better?*
- *Can you do it better by using less materials and/or energy?*
- *How about talking with your team about your ideas on improvements and innovations?*

Checklist:

Action checklist

- Find out how all your equipment is supposed to work.
- Make sure you know how to use your equipment effectively and efficiently.
- Ask for appropriate training if necessary.
- Find out who maintains your equipment.
- Keep your working area tidy – you can spot problems much more quickly.
- Develop your own regular cycle of tidying your work area, checking your equipment, fixing up minor problems and suggesting improvements.
- Find out what channels you have for discussing ways to improve the working process.
- Always try to use the minimum amount of materials to do the job.

Around you at work

Besides doing your job and minimising waste and using less energy, there are other areas where you can make a difference too. You can:

- *ask questions about why things are done in a particular way;*
- *find out if there is a simpler or better way to do the same job?*

The maintenance teams are your partners in keeping the workplace efficient: tell them about lights that have no visible switches, radiator valves that are stuck, compressed air lines that are leaking.

You can set an example on reducing waste and saving energy.

- *Find out what your responsibilities are when dealing with wastes – e.g. location of skips and disposal containers.*
- *Make sure that you label all your disposals clearly and place them in a safe place.*
- *In general, close doors and windows if appropriate, report broken ones to the right person(s).*
- *Use paper recycle bins, bottle and can banks.*
- *Start sorting waste materials – some other company can probably use them. In many instances, they will even pay for sorted industrial waste materials!*

At home and in the community

Saving energy and reducing waste is not just for work, it also applies at home.

There are many things you can do easily to save energy and save money, for example:

- *Keep your hot water thermostat at 60°C.*
- *Turning down your central heating thermostat by 1°C can save you 10% off heating bills.*
- *The 'standby' button on your TV and video cost money, turn them off instead.*

We are living in a community of 'drive-thrus', out-of-town shopping centres and multiplexes. Changing the way our society lives will take time, but you can make a difference now:

- *Re-use shopping bags.*
- *Sort your rubbish – use paper, bottle and can banks.*
- *Use a compost bin and water butt if you have a garden.*
- *Plan your journeys to make sure they are all necessary.*
- *Try car sharing, use public transport, cycle or walk.*

Partnerships to reduce waste and save energy

No one person or team can do it all on their own, but a partnership between the management and workforce can tackle almost all the energy and waste issues.

- *Find out how much energy and water cost your site, then work out what 10% savings is worth. Once everyone knows this is what can be achieved by better housekeeping, you will receive lots of ideas from other people.*
- *Work out your waste costs and then tell everyone how much it is costing and set a target for cost savings through waste minimisation.*
- *Encourage others to get involved – ask them what they think will reduce waste and save energy.*
- *Try out new ideas, and once you start saving costs, other people will become interested and will listen to your suggestions.*

Waste minimisation and energy efficiency are good projects for your team, but they are even more successful if you can build a partnership across the entire workplace.

Management, staff, contractors, suppliers and customers all share this Earth together. Everyone has got something special to contribute.

Partnership has many advantages:

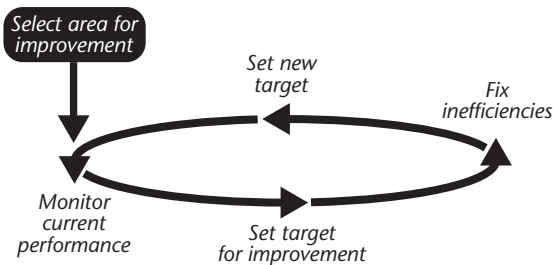
- *more ideas to do things better;*
- *more resources to allow things to happen;*
- *more support for your projects;*
- *greater waste and energy savings.*

These partnerships can be linked to existing programmes in your workplace:

- *part of a Total Quality campaign;*
- *a major component in 'lean production';*
- *a set of disciplines in Total Productive Manufacturing;*
- *provide ideas for continuous improvements or 'kaizen'.*

Action plan

START NOW:



- *List areas where waste and inefficiencies occur.*
- *Involve and encourage everyone to make suggestions as to how to do things better.*
- *Show everyone the current performance, targets and results – use notice boards or posters.*

Other guides in the series:

- *Compressed air*
- *Maintenance*
- *Boilers*

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