

# Calling Time On Waste

A publican's handbook to a leaner, greener cost base.

HOW TO SAVE MONEY BY CONSERVING WATER, SAVING ENERGY AND PREVENTING WASTE

MONAGHAN COUNTY COUNCIL'S PARTICIPATION IN THE PROJECT WITH THE VFI WAS PART FUNDED BY THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE NATIONAL WASTE PREVENTION PROGRAMME.

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**TABLE OF CONTENTS:**

---

Message from VFI President	2
----------------------------	---

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<b>Water</b>	<b>3</b>
Harvesting Rainwater	7
Water Checklist	9

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<b>Energy</b>	<b>11</b>
Lighting	13
Refrigeration	16
Results from an energy assessment	18
Heating	19
Kitchen	22
Energy Maintenance Programme	25
Energy Checklist	26

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<b>Waste</b>	<b>27</b>
Food and Packaging waste	30
Waste Checklist	33

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<b>Environmental Case Studies</b>	<b>35</b>
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## Message from the VFI President



### **WHY SHOULD I READ THIS BOOKLET?**

Publicans are well aware that current market conditions requires them to look at all cost aspects of their business. Typically, environmental costs can be 10% of turnover or €20,000 per annum for the average pub. This booklet will show you how to implement an environmental management programme in your pub no matter how big or small and in the process, to significantly reduce costs.

### **WHAT IS AN ENVIRONMENTAL MANAGEMENT PROGRAMME?**

Managing your environmental costs means putting a system in place that identifies the areas where you create waste, use energy and waste water and the potential to reduce these costs.

### **WHAT CAN I EXPECT TO SAVE?**

If you only implement a couple of the items in this booklet you could achieve 10- 15% savings. However if you were to implement all suggestions in this booklet you could save up to 40% of your environmental costs. For the average pub this could be as much as €8000 saved a year.

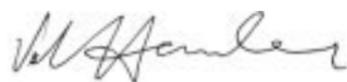
### **WHAT WILL I HAVE TO DO TO ACHIEVE THESE SAVINGS?**

The most important thing that you can do is commit yourself to working on environmental costs for a number of months. Time and some capital spend is required to achieve savings, however, it will be worth it. Appoint yourself or a trusted member of staff as the environmental champion and get started.

### **HOW DO I GET STARTED?**

Read this booklet and identify items in it that you think you can achieve and begin to implement an environmental programme that will save you money. This booklet is meant to identify potential areas and is not an exhaustive list. Rather, it is primarily meant to stimulate the thought process to addressing the potential in these areas. This thought process and action plan can be as deep as you want it to be in your business.

I would like to acknowledge the considerable work and commitment of Sean Redmond, Andy's Bar, Monaghan and Nial O'Connor and Aileen Owens, LAPD Project, Environmental Section, Monaghan County Council in bringing this booklet to fruition. We owe them a deep debt of gratitude.



Val Hanley, VFI President

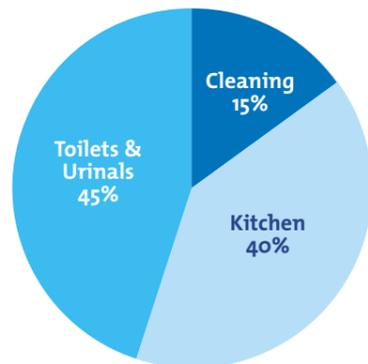
# Section 1 - Water

By installing water saving devices on urinals  
a pub saved €500 on water costs in a year



Water costs vary depending on where you are in the country and what type of supply you have. On public schemes the “polluter pays principal” means that all businesses have to pay for water and waste water. If you are not already metered you soon will be, which means that you pay for what you use. Water pricing varies from Council to Council and is set annually when the Council is agreeing its budget for the following year.

**TYPICAL WATER USE IN A PUB WITH KITCHEN**



**HOW CAN I SAVE MONEY ON MY WATER CHARGES?**

To save money you need to implement a water conservation programme in your business targeting the major water using areas such as kitchen and toilets.

**WHAT MEASURES DO I NEED TO TAKE TO CONSERVE WATER?**

- Check for and fix leaks.
- Measure and monitor water consumption on a weekly or monthly basis by reading your water meter.
- Install water saving devices.
- Consider rain water harvesting.
- Implementing a water conservation programme can easily save you 10-15% on your water usage.

**HOW MUCH WILL A LEAKY TOILET COST ME?**

A faulty ball – cock in an overflow from a toilet cistern could cost in excess of €1000 per annum.

**WHAT WATER SAVING DEVICES CAN I INSTALL TO SAVE ME MONEY?**

- Install self-closing taps with aerators (e.g. those with push-tops) to prevent taps being left on. A tap left on will use 1000 litres an hour, which is equivalent to €2 an hour or €50 a day wasted.
- Fit urinals with water conservation devices, such as pressure switches, shut off valves, solenoid valves or motion sensors, which ensure that urinals are only rinsed when necessary. This can save a huge amount of water as urinals otherwise flush 24/7, even when the building is unoccupied! Take the following example.

A 9 litre urinal that automatically flushes four times an hour will use 315m<sup>3</sup> of water per annum. By fixing a shut off valve or solenoid valve this can be reduced by 75%. Depending on water charges this could save you €500 per annum with very little cost involved.



Motion sensor which has been retrofitted to urinals to conserve water and save



- Reducing cistern flush from 9 to 7 litres by using displacement devices like hippo bags can save you €20 a year per cistern. If you don't have hippo bags use homemade displacement devices like filled half litre bottles or place a brick in the cistern.

**HOW DO I KNOW IF I HAVE A LEAK BY READING MY WATER METER?**

Turn off all equipment and read your water meter just before the residence is going to be empty for several hours. Upon return, read your meter again, if the meter reading has changed water has been used somewhere. If you cannot account for this there may be a leak somewhere in the premises. Contact your plumber for advice and assistance.



Hippo bag being used in a cistern to reduce water costs

On public schemes the ‘polluter pays principal’ means that all businesses have to pay for water and waste water.

## 5 Easy Steps to Reading Your Meter

### HOW DO I READ MY WATER METER?

- 1 Locate the meter. Most water meters are located in the footpath outside your premises.
- 2 Water is measured in cubic meters (1 cubic metre = 1000 litres).
- 3 Lift the lid off. Flip up the protective cover to reveal the dial.
- 4 In the modern meters when water is used, the red dial will rotate. The red digits record litres. The black digits record cubic metres (m<sup>3</sup>). You will be charged only for whole cubic meters used.
- 5 NOTE: There may be more than 1 meter per premises

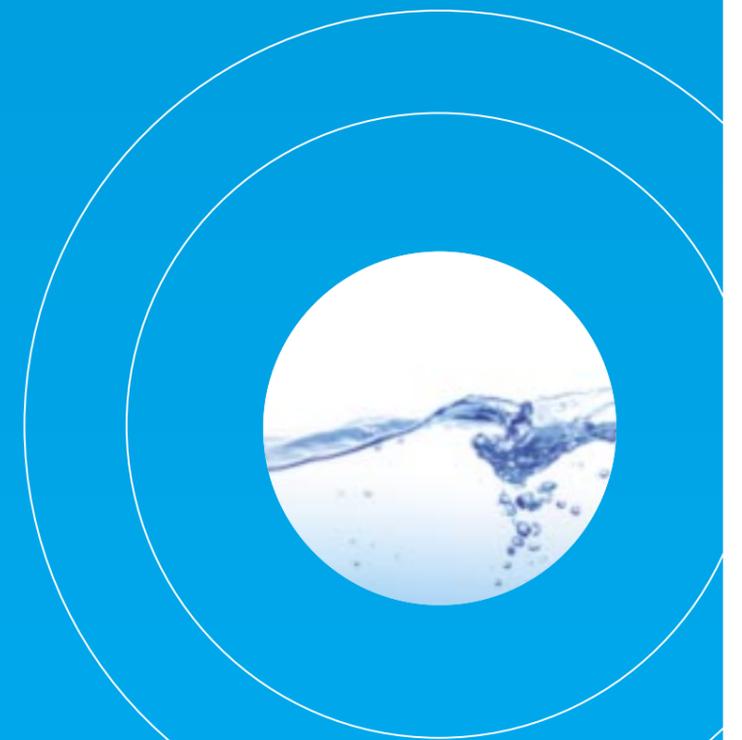
### HOW DO I KNOW IF I HAVE A LEAK BY READING MY WATER METER?

Turn off all equipment and read your water meter just before the residence is going to be empty for several hours. Upon return, read your meter again, if the meter reading has changed water has been used somewhere. If you cannot account for this there may be a leak somewhere in the premises. Contact your plumber for advice and assistance.



## HARVESTING RAINWATER

By installing a rain water harvesting tank a pub has saved itself €400 annually on water charges.



## How it works, How you save

### HOW DOES RAINWATER HARVESTING WORK?

- 1 Rainwater is collected from the roof drainage system, the debris is filtered out and the water is stored in a tank.
- 2 Water is supplied on demand from the storage tank by a submersible pump through a floating suction filter to toilets.
- 3 Mains water top up is provided directly to the tank by a solenoid valve.
- 4 NOTE: Harvested rainwater is not suitable for hand washing.

### HOW MUCH DOES RAINWATER HARVESTING COST AND WHAT WILL BE THE EXPECTED PAYBACK?

*Retrofitting is very expensive and not advisable.*  
 If you are carrying out refurbishment of the premises it is more financially feasible. If doing a DIY job on an over ground tank with pump expect to pay up to €2000 for parts and some labour. Expected pay back would be about 5 years.  
 For a professionally installed underground tank expect to pay about €5000 with an expected payback of 10 years.



### HOW MUCH MONEY COULD I SAVE PER ANNUM BY USING HARVESTED WATER FOR MY TOILETS OR URINALS?

Taking the following example:

- Bar with 4 toilets and 2 urinals each with a 9 litre flush.
- Assume each toilet is flushed 10 times a day then total consumption is 131m<sup>3</sup> for the year.
- Assume that each urinal is flushed 48 times a day then total consumption is 315m<sup>3</sup> for the year.
- Therefore the average cost for these toilets would be €930 per annum.
- If you could harvest rainwater then you could be saving a large proportion, if not all of this cost.

By measuring and monitoring you can identify any potential problems with your system



Water Checklist	Yes	No
Have you checked that you have no leaks on the premises?	<input type="radio"/>	<input type="radio"/>
Have you ensured that urinals are not flushing when the premises is closed?	<input type="radio"/>	<input type="radio"/>
Have you identified your major water using equipment?	<input type="radio"/>	<input type="radio"/>
Have you fitted self closing aerated taps?	<input type="radio"/>	<input type="radio"/>
Do you regularly read your water meter?	<input type="radio"/>	<input type="radio"/>
Have you considered rain water harvesting?	<input type="radio"/>	<input type="radio"/>
Have you informed your staff about the importance of conserving water?	<input type="radio"/>	<input type="radio"/>
Are all taps in your kitchen fitted with trigger operated spray hoses?	<input type="radio"/>	<input type="radio"/>
Have you water conservation signage in place?	<input type="radio"/>	<input type="radio"/>
The online Water audit tool (WAVE), available at <a href="http://www.greenbusiness.ie">www.greenbusiness.ie</a> lets you calculate where you might be losing water through leaks and their associated costs.		

## Harvesting Rainwater Tip

Install a water meter on the outflow pipe of your holding tank to measure and monitor the quantity of harvested rainwater your premises is using.

By measuring and monitoring you can identify any potential problems with your system.

## Section 2 - Energy

Most pubs will save 10% on their energy costs by implementing no and low cost energy solutions



From a cash flow point of view getting estimated electricity bills can be inconvenient. You can avoid this by supplying your electricity supplier with monthly meter readings by phone or through email.

**WHAT ARE MY TYPICAL ENERGY MANAGEMENT COSTS?**

Your usage of electricity, oil, gas and coal will make up your total energy spend. For most publicans energy costs can represent between 5-8% of turnover, which is enough for any publican to want to take action.

**WHAT ARE MY ELECTRICITY COSTS?**

The total electricity cost is made up of a number of components:

- Cost per unit, this depends on the tariff.
- The amount of units used which are measured in kilo Watt hours (kWh).
- Standing charges which depend on the tariff.
- VAT.

**WHAT IS THE BEST TARIFF TO BE ON?**

One of the easiest ways to reduce energy costs is to ensure that you are on the correct tariff. For the typical bar the correct tariff is General Purpose Night Rate. **Check your electricity bill or check with your supplier to ensure that you are on the correct tariff.**

**HOW DO I ENSURE I AM GETTING THE BEST PRICE PER KWH.**

Every year phone the different electricity supply companies and ask them what they are charging. For a full list of companies see the commission for energy regulators website [www.cer.ie](http://www.cer.ie).

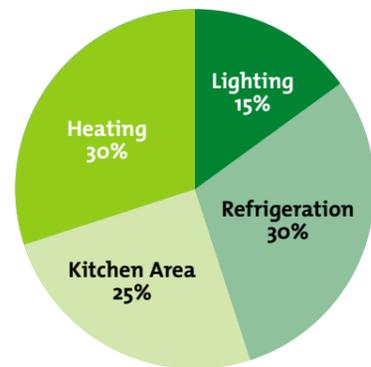
**CAN I AVOID GETTING ESTIMATED ELECTRICITY BILLS?**

From a cash flow point of view getting estimated electricity bills can be inconvenient. You can avoid this by supplying your electricity supplier with monthly meter readings by phone or through email.

**WHERE DO I USE MY ENERGY AND WHERE CAN I MAKE SAVINGS?**

In a typical bar serving food energy consumption would look like this.

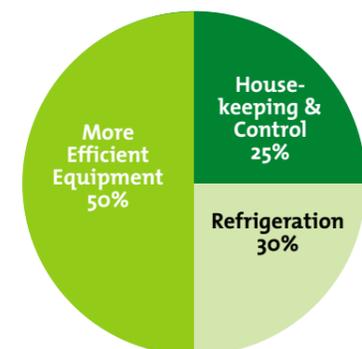
**ENERGY USE IN BAR WITH KITCHEN**



**WHAT AREAS SHOULD I TARGET TO MAKE SAVINGS ON MY ENERGY BILL?**

If you want to reduce your environmental costs then you need to take action in a number of different areas. This pie chart gives an indication of how and where most bars and restaurants can save energy and save money.

**WHERE ENERGY SAVINGS CAN BE MADE**



**LIGHTING**

An **80% saving** is achievable in lighting costs by switching to energy efficient lighting, using better lighting controls and implementing good housekeeping procedures



## How it works, How you save

### HOW CAN I REDUCE MY LIGHTING COSTS?

Lighting can account for between 15- 20% of your electricity bills. Savings of up to 80% can be made through better housekeeping and installing energy efficient lighting and controls.

### WHAT TYPE OF SAVINGS CAN I MAKE IF I INSTALL ENERGY EFFICIENT LIGHTING?

A typical bar could have forty 50 watt halogen bulbs in bar and a further ten 100 watt incandescent bulbs in toilets and back areas.

40 X 50 watt halogen bulbs in bar cost per year: **€1400**

10 X 100 watt incandescent bulbs toilets/back areas cost per year: **€700**

**Total Cost per year for lighting is: €2,100**

If the publican was to replace the 50 watt halogen with 11 watt CLF spot lights and the incandescent with 15 watt CFL bulbs and motion sensors, then:

40 X 11 watt & 10 x 15 watt CFL cost per year: **€700**

**TOTAL SAVING PER YEAR: €1400**

The replacement costs will be in the region €700 plus labour giving an estimated pay back of less than 6 months.

**TIP:** Before embarking on a major lighting change, trial a sample of the lights first to make sure they are the correct colour rendering and that they provide enough light for the task required.

### SAMPLE SAVINGS ON CFL BULBS COMPARED WITH ORDINARY BULBS:

CFL WATTAGES	Energy running cost of cfl bulbs over 10,000 hours	Ordinary bulbs (incandescent, strip or halogen)	Energy running costs per lamp	Savings in energy costs per lamp
9 watts	€14	40 watts	€64	<b>€50</b>
11watts	€17	60 watts	€96	<b>€78</b>
15 watts	€24	75 watts	€120	<b>€96</b>
20 watts	€32	100 watts	€160	<b>€128</b>

You should contact your local electrical supplies shop to ask about energy efficient lighting opportunities for your pub.



### LIGHT SENSORS

The sensible application of light sensors around the pub can make considerable savings to your annual bill. A typical example of this is your toilet areas which tend to have lights on from opening to closing time although they are only used periodically during the day.

**A typical pub with three 60 Watt bulbs in both male and female toilets could save €200 - €250 a year by applying a sensor in each of the toilets. If you installed CFL bulbs the savings would be greater.**



Motion sensor which turns on light automatically

### ARE THERE ANY HOUSEKEEPING AND MAINTENANCE PROGRAMMES FOR LIGHTING?

- Make sure lighting switches are clearly labelled. This will help staff manage lighting.
- Provide staff with a checklist of when and what lights should be turned on.
- Have multiple lighting zones – if you have one master switch for all lighting get this changed.

- Use natural light whenever possible. Encourage staff to open blinds rather than turn on lights.
- Clean light fittings, a dirty diffuser, shade or reflector can reduce light output by 20%.

### WHAT ABOUT OUTSIDE LIGHTING?

Outside lighting, especially energy intensive halogen or metal halide bulbs can be expensive to operate. Install timers and turn them on when needed and don't forget to adjust them based on daylight hours. Security lighting should be operated by motion sensors.



Motion sensor to activate security lighting

### ARE THERE GRANTS AVAILABLE FOR ENERGY EFFICIENT LIGHTING?

No, but there are tax breaks available for installing energy efficient lighting if you spend over €3000. The Accelerated Capital Allowance scheme is operated by Sustainable Energy Ireland (SEI). [www.sei.ie/aca](http://www.sei.ie/aca)

## REFRIGERATION

For many pubs, refrigeration will be the **most expensive** equipment to operate. Remember operating costs will be several times the purchase price over the fridges lifetime.



### MY REFRIGERATION AND COOLING ACCOUNTS FOR 30% OF MY ENERGY SPEND, WHAT CAN I DO TO REDUCE IT?

To reduce costs in your refrigeration you need to ensure that your refrigeration is operated in the most efficient way - a 10% decrease in efficiency will lead to a 10% increase in running costs.

Walk in coolers in many pubs will be the biggest single energy consumer. You can reduce costs by:

- Installing a PVC curtain on your walk-in cooler will provide a 20% reduction on running costs based on 20 one minute openings per day.



*A PVC Curtain to reduce temperature loss when opening door*

- Make sure you have your refrigeration set correctly. Refrigeration temperatures set 1°C too low can increase running costs by 2-4%. Ask your refrigeration contractor for optimum temperature settings.
- Control lighting in the fridge. Lighting can contribute 10% of the load because of the heat it produces. Replace any incandescent bulbs with CFLs and motion sensors.
- Check your door seals. A faulty door seal could increase power consumption by 11%.
- Get refrigeration maintained annually.
- On preparation fridges, keep doors and lids closed.
- Make sure condenser and evaporator fins are regularly cleaned.



*Keep evaporator fins clean*

APPLIANCE	NORMAL RUNNING CONDITIONS	ENERGY SAVINGS MEASURE	RESULT/SAVING	OBSERVATIONS	POTENTIAL ANNUAL SAVINGS
Coffin Cooler (Without Cold Room)	Running 24hrs on thermostats	8hr timer & thermostat	50% reduction in energy consumption	Consumption dropped from 20kWh to 9.6kWh per day with use of timer with no effect on quality.	€750
Cold Room	No PVC curtains	PVC curtains installed	0.2kWh per day	Although this figure appears low the test was conducted in Feb/Mar when ambient temperatures were low. Savings would increase during warmer months.	€50
Glass Washer in Bar	Switched on 5pm - 12pm	Switched on after 7pm or whenever glasses build up	17% energy saving	Reduction from 30kWh to 25kWh per week mostly through improved housekeeping.	€50
		De-scaled dishwasher	30% energy Saving	Further reductions from 25kWh to 17kWh per week were observed. Lime-scale deposits on the temperature probe causes the water to overheat.	€85
Kitchen Preparation Fridges	On 24/7 as they contain food	Ensure fridges are at least 6 inches from wall and clean blades, fins & covers	Potential 25% saving	When recording energy consumption on preparation fridge surge in kWh consumption was noted on day three. A plastic bag had been sucked onto the back of fan cover thus drastically increasing consumption. Remember to clean fan blades & condenser fins and regularly check your fan covers!	Depends on Fridge Size
Under Counter Coolers	On 24/7 on thermostats in function room	Timer used to turn on fridge for Fri, Sat, Sun.	Saving almost 60%	Installing a seven day timer costing €20 to automatically turn fridges on and off results in big savings	€300 - €350

Note: these figure should only be used as a guide as they relate specifically to one pub and their equipment, the age, condition of equipment and insulation are all factors that influence the results

## HEATING

Many bars will spend considerable amounts of money on heating and cooling their premises. Do you know how much it costs you annually?



## How it works, How you save

### WHAT CAN I DO TO REDUCE MY HEATING BILL?

- Space heating and cooling will account for 20 – 30% of your overall energy costs.
- Buildings which are properly insulated and draft proofed can significantly reduce energy consumption, thereby saving you money. If you are doing any type of building work or refurbishment, spend some money on quality insulation – it will save you money in the long term.
- Get your boiler and air conditioning unit maintained annually. A 10% decrease in boiler efficiency will lead to a 20 % increase in running costs per kWh of energy provided.
- Keep radiators clear. Don't block radiators with furniture - it reduces efficiency and output.
- Install thermostatic controls and zone your heating. This will allow you to adjust the temperature in different areas saving you money.
- Install Thermostatic Radiator Valves to radiators to regulate the temperature.
- The ideal temperature for space heating is 19°C – 22°C. Reducing the temperature by 1°C could cut your bill by as much as 10%.
- Make sure that you are not heating and cooling at the same time.

### CAN I SAVE MONEY ON MY SMOKING ROOM HEATING?

There has been a lot of debate about the efficiency of patio heaters. From a publican's perspective infra red heaters on a motion detector sensor have proved to be the most cost effective option from an energy basis.

### HOW CAN I SAVE MONEY ON HEATING HOT WATER FOR CLEANING AND FOR CUSTOMER TOILETS?

Heating hot water can account for 10 -15% of your overall energy bill. There are a couple of actions you can take to reduce your costs:

- Make sure tanks and all pipes are insulated. Insulating your hot water tank will pay for itself in 6 months.
- If you are only heating hot water for behind the bar and in toilets consider installing under the counter localised hot water heaters. They are energy efficient and there is very little heat loss. Typically they cost €200 for a 20 litre unit plus installation costs – and running costs of €2.50 a week to provide hot water.



*Under counter hot water heaters – an efficient way to provide hot water*



- If you are heating water on an immersion do not leave it on constantly – rather fit a timer and heat hot water during the night rate period, this is much more cost effective saving you potentially 30% on your hot water costs.
- Your hot water tank temperature should be set to 60° c – which is adequate to kill legionella bacteria and is sufficiently warm for guests and staff, any hotter and you are wasting energy. If you do not already have thermostats get one fitted. You should also note that there is a danger of burns with hotter temperatures than 60°C.
- Install self closing taps with low flow restrictors on all taps. They use less water and therefore cost less.
- In your kitchen install low flow trigger operated spray taps and hoses.



*In your kitchen install low flow trigger operated spray taps and hoses.*

Fitting a timer and a thermostat on your immersion could potentially save you 30% on your hot water costs

## KITCHEN

Storing, preparing and cooking food requires considerable amounts of energy which **costs you a lot of money**



## How it works, How you save

### HOW CAN I SAVE MONEY IN MY KITCHEN?

In a food premises, cooking and preparing food will be a significant energy user. However good housekeeping practices can help you reduce these costs by up to 25%.

### WHAT HOUSEKEEPING PROCEDURES SHOULD I IMPLEMENT?

Work with your chef to develop simple departmental procedures that all staff can easily follow like:

- Don't turn on equipment as a matter of course or before they are required.
- Cut idle time – turn off equipment in between service times – it will save you money. During quieter periods turning a fryer off between orders could save you 50 - 75% of the operating costs.
- Most modern catering equipment have very short pre-heat times; make sure your staff turns on equipment only when needed.
- Operate your equipment efficiently. Most modern grills, griddles and salamanders have dual zones so only turn on half the appliance during quieter periods saving you 50% of the operating costs.
- Make sure that you clean your extraction fan regularly to increase its' efficiency. Consider installing variable speed drive motors which uses sensors to vary exhaust speed to match your ventilation needs saving you up to 50% of the running costs.



*Variable speed drives can reduce energy consumption for extractor fans*

- Don't unnecessarily open doors of ovens – you are simply letting money escape. Keep oven doors clean.
- It's more efficient to have two smaller combi ovens than one large one. They use half the energy and cost half as much to purchase.
- Use gas ovens rather than electric ones as gas is more efficient and can be as much as 50% cheaper than electricity.
- Warming tables, ban maries and hot cupboards are big energy users. Note their warm up times and make sure staff adheres to these.
- Keeping lids on pots reduces energy used by 50%.

## How it works, How you save

### HOW CAN I REDUCE MY DISHWASHING COSTS?

- It goes without saying – only run your dishwasher when full, to do otherwise is a waste of money.
- If you have a dishwasher with an internal tank heater and extraction hood turn them off when not in use. You should also ensure that the dishwasher is fed with hot water from the boiler.
- Use trigger operated hoses when rinsing pots and pans.
- Use a sink plug and don't leave tap running.



Make sure your dishwasher is full each time it's used

### HOW MUCH DOES IT COST ME TO USE MY TUMBLE DRYER AND WASHING MACHINES?

Having a tumble dryer on for an hour can cost over a €1 depending on the energy rating of your tumble dryer – use only when necessary.

#### HOW CAN I REDUCE THIS COST?

- If you have night rate electricity use your washing machine during these times. Try not to put washing straight from the washing machine into the tumble dryer – find an area that you can use as a drying room or dry outside if practical.
- Use a high spin on your washing machine to get the clothes as dry as possible.
- Make sure the room the dryer is in is well ventilated. This stops the tumble dryer from overheating. If it overheats, it takes longer to finish drying a load.

If you have night rate electricity use your washing machine during these times.



### WHAT TYPE OF ENERGY MAINTENANCE PROGRAMME SHOULD I HAVE?

#### DAILY

- Have a note of all preheat times for cooking equipment and ensure staff adhere to these.
- Ensure the doors of all fridges and freezers remain closed at all times.
- Place cold foods in the fridge or freezer as soon as they arrive.
- Switch off main ventilation plant and toilet extractor fans outside occupancy hours.

#### WEEKLY

- Clean filters on extraction fan.
- Make sure fridges are away from walls – they need air and space to work effectively.
- Clean combi ovens .

#### MONTHLY

- Clean cooler condenser fins or coils. If they are covered in dust, this acts as insulation and prevents heat from escaping - wasting up to 23% more energy than is required.
- Read electricity meter and submit readings to electricity supplier.
- Check all controls, settings and timers and adjust for seasonal variations if necessary.
- Clean oven doors – opening oven doors unnecessarily drops temperature by as much as 15°C.
- Check for build up of ice on refrigeration and coolers.
- Descaling dishwashers can increase efficiency by 30%.

#### ANNUALLY

- Get refrigeration serviced annually to keep its Coefficient of Performance (COP).
- Get boilers serviced to keeping running costs down.
- Clean all lights and fixtures, remember having dirty or dusty lights reduces light output by 20%.



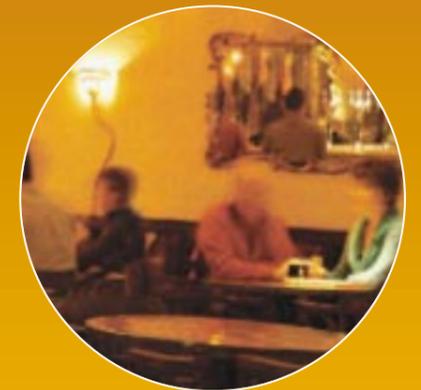
A poorly maintained beer chilling system. Ice build up indicates poorly insulated pipe-work on refrigeration.

If you answer yes to all of the questions below then you will be on your way to achieving a 10-20% reduction in your energy bills.

Energy Management Checklist	Yes	No
Do you know what your annual energy spend is and are you on the correct tariff with the cheapest energy provider?	<input type="radio"/>	<input type="radio"/>
Have you an annual maintenance programme for boiler, refrigeration, lighting and other big equipment?	<input type="radio"/>	<input type="radio"/>
Have you installed energy efficient lighting and controls?	<input type="radio"/>	<input type="radio"/>
Do you turn off refrigeration in areas that are closed for a number of days e.g. function rooms?	<input type="radio"/>	<input type="radio"/>
Have you procedures in place in your kitchen for when equipment should be operated?	<input type="radio"/>	<input type="radio"/>
Have you different heating zones and have you set the temperature correctly?	<input type="radio"/>	<input type="radio"/>
Have you adequate insulation in attic space, on tanks and on pipes?	<input type="radio"/>	<input type="radio"/>
Do you supply your energy companies with meter readings?	<input type="radio"/>	<input type="radio"/>
Have you trained and informed your staff on what is expected from them to reduce energy consumption?	<input type="radio"/>	<input type="radio"/>
Have you installed a PVC curtain in your walk in cooler?	<input type="radio"/>	<input type="radio"/>
Sustainable Energy Ireland have lots of online tools to assist you with energy management. <a href="http://www.sei.ie">www.sei.ie</a>		

## Section 3 - Waste Management

By re-tendering for waste collection, implementing a source segregation scheme and reducing food waste a pub saved €4000 per annum on waste charges



# How it works, How you save

## HOW CAN I SAVE MONEY ON MY WASTE COLLECTION CHARGES?

- Determine what level of service you require, and compare this with the level of service you are currently receiving.
- What are you paying your waste collection provider for and what are their charges?
- Are the bins full when they are collected and who monitors this?
- Could you reduce the numbers of bins to be lifted?
- To encourage better waste segregation, are you using wheelie bins rather than skips or compactors?
- If more than one waste collector is operating in your area, do you retender annually?

## HOW CAN I IMPROVE MY WASTE MANAGEMENT TO SAVE MONEY?

- The key to good waste management is preventing waste at source
- Analyse what waste you have – how much food, cardboard, plastics and other waste do you produce? Can you prevent any of this, what can you recycle and what needs to be landfilled?
- How can I improve my waste segregation? Position bins close to where the wastes are produced e.g. kitchen, bar area. Make sure the bins are clearly labelled and train and inform staff of what can be recycled and then monitor. Use clear plastic bags rather than black refuse sacks.



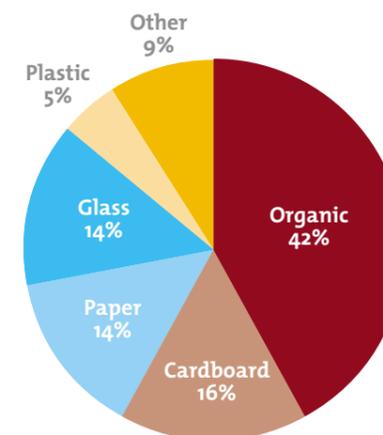
Clearly labelled bins help staff segregate waste

- What can I recycle? Cardboard, glass, plastic and paper are the most common items that can be recycled. Other items like waste electrical equipment and waste oils can be recycled at your local recycling centre, contact your waste operator or local recycling centre for a full list.



## WHAT TYPES OF WASTE DOES A PUB PRODUCE?

This study by the EPA shows that up to 50% of the waste that is produced in a bar serving food is recyclable and another 40% is organic waste. You can easily implement an environmental programme that will prevent waste and save you money.



## WHY SHOULD I BOTHER RECYCLING?

- All bars are legally obliged to recycle.<sup>1</sup>
- Whilst getting more expensive, recycling is still cheaper than landfilling the waste, therefore it will save you money.
- Many of your customers will expect you to recycle your waste.

<sup>1</sup> Waste Management (Packaging) Regulations 1997 - 2003

Cardboard, glass, plastic and paper are the most common items that can be recycled.

## FOOD AND PACKAGING WASTE

The most desirable form of waste management is to **prevent at source**



The cost of your waste is not so much the cost of disposing of it as much as the value of what you are getting rid of

### HOW MUCH DOES FOOD WASTE COST ME?

In restaurants and bars serving meals, food waste can be a significant cost.

Consider the following

- The initial purchase cost of raw ingredients.
- The cost of storing the food.
- The cost of preparing and cooking the food.
- The cost of disposing food waste.

It is a conservative estimate that the value of a kg of food waste costs the publicans €2. Therefore, if you are disposing of a tonne (1000 kg) of food waste a year you are throwing away €2000 of potential profits.

### WHAT CAN I DO TO REDUCE MY FOOD WASTE?

In food serving premises, reducing your food waste should be a priority, doing this will save you money. No investment is required; instead implement some simple departmental or housekeeping procedures.

- Take a look at what food waste you are producing – where can you make changes that will reduce food waste.
- Look at portion control. Too large and it is a waste – remember most people prefer quality over quantity.
- If you do a carvery – what is left as waste? What can you do to reduce this?
- Have just in time ordering and a good stock rotation policy. This will prevent out of date stock becoming waste.
- Store food in a clear container and clear lid. Food in steel containers and steel lids can easily get lost in cold rooms.

- Good staff training and standardised recipes ensure consistent results with the minimum of waste.
- If you decrease your food waste by 25% you not only decrease your waste costs but you could also potentially save up to €500 on food and energy related costs.
- Vacuum Packing food is a great way to store food and cuts down on food waste



*Vac packing and dating fish avoids waste*

## How it works, How you save

### WHAT OTHER MEASURES CAN I TAKE TO REDUCE MY PACKAGING WASTE?

- Use returnable bottles; it is much more environmentally friendly.
- Ask suppliers to decant supplies at back door and take away packaging – they will soon start to use reusable packaging. This will save you money.
- Whilst using single use condiments may seem cost effective they add to your waste bill, consider buying in bulk and using ramekins, sauce dispensers, sugar dispensers etc.
- Know more about the types of packaging that you cannot recycle like Styrofoam, which has to be landfilled – tell your supplier you cannot accept this material and that you will return it to them. Alternatively source a different supplier with recyclable or reusable packaging.

### HOW DO I DEAL WITH WASTE OILS?

- Having a filter and good temperature control on your oil fryer will reduce the frequency of oil changes by 50%.
- Purchase vegetable oil in bulk, having a designated oil container eliminates packaging.
- There are a number of companies who will collect waste oil for free. Phone around to get the best deal.



Having a filter reduces the frequency of cooking oil changes

If you answer yes to all of the questions below then you will be on your way to achieving a 10-15% reduction in your waste costs.

### Waste Management Checklist

Yes

No

Do you know how much waste you dispose off and what it is costing you annually?



Have you reviewed waste management practices, can any changes be made?



Have you priced other waste contractors operating in your area?



Have you contacted your suppliers about using reusable packaging?



Have you looked at food waste and ways to reduce it?



Have you a recycling scheme set up?



Are you monitoring your waste, and how staff manage it?



Have you a best practice system in place for oils and waste oils?



Are you using wheelie bins instead of skips?



To help you monitor your waste, an online waste audit tool is available at [www.greenbusiness.ie](http://www.greenbusiness.ie). The tool will let you break down the waste you produce by amount, types and source, helping you to identify areas for improvement

## ENVIRONMENTAL CASE STUDIES

A project by Monaghan County Council and VFI Monaghan branch in 2008 identified average savings of **€1000 on environmental costs** in the 17 pubs that participated

Here are some examples of cost savings achieved by pubs in County Monaghan who participated in an Environmental Programme organised by VFI Monaghan Branch and Monaghan County Council Environment Section:

- A bar saved €1200 per annum on waste charges by implementing a source segregation scheme and by retendering for waste management.
- A bar saved €800 on their bi-monthly bills by installing energy efficient lighting and timers on their fridges.
- By installing a night meter a publican saved €600 per annum on his electricity charges.
- By installing solenoid valves on their urinals a bar saved €500 per annum on their water charges.
- A pub changed all existing light bulbs to energy efficient CFLs resulting in a saving of €1400, the equivalent to over 8000 kWh of electricity.
- By installing rain water harvesting a pub has saved €400 per annum in water charges.
- By turning off fridges in the "back room" during the week a publican saved €300 per annum.
- By installing displacement devices and dual flush toilets a pub saved €150 per annum on waste charges.
- By installing timers on their beer cooling system a pub saved €400 per annum on operating costs.
- By preventing waste at source a bar reduced the number of bin lifts per week from 6 to 2 saving themselves €4000 per annum on waste charges



Thank you for taking the time  
to read this brochure