An Roinn Caiteachais Phoiblí agus Athchóirithe
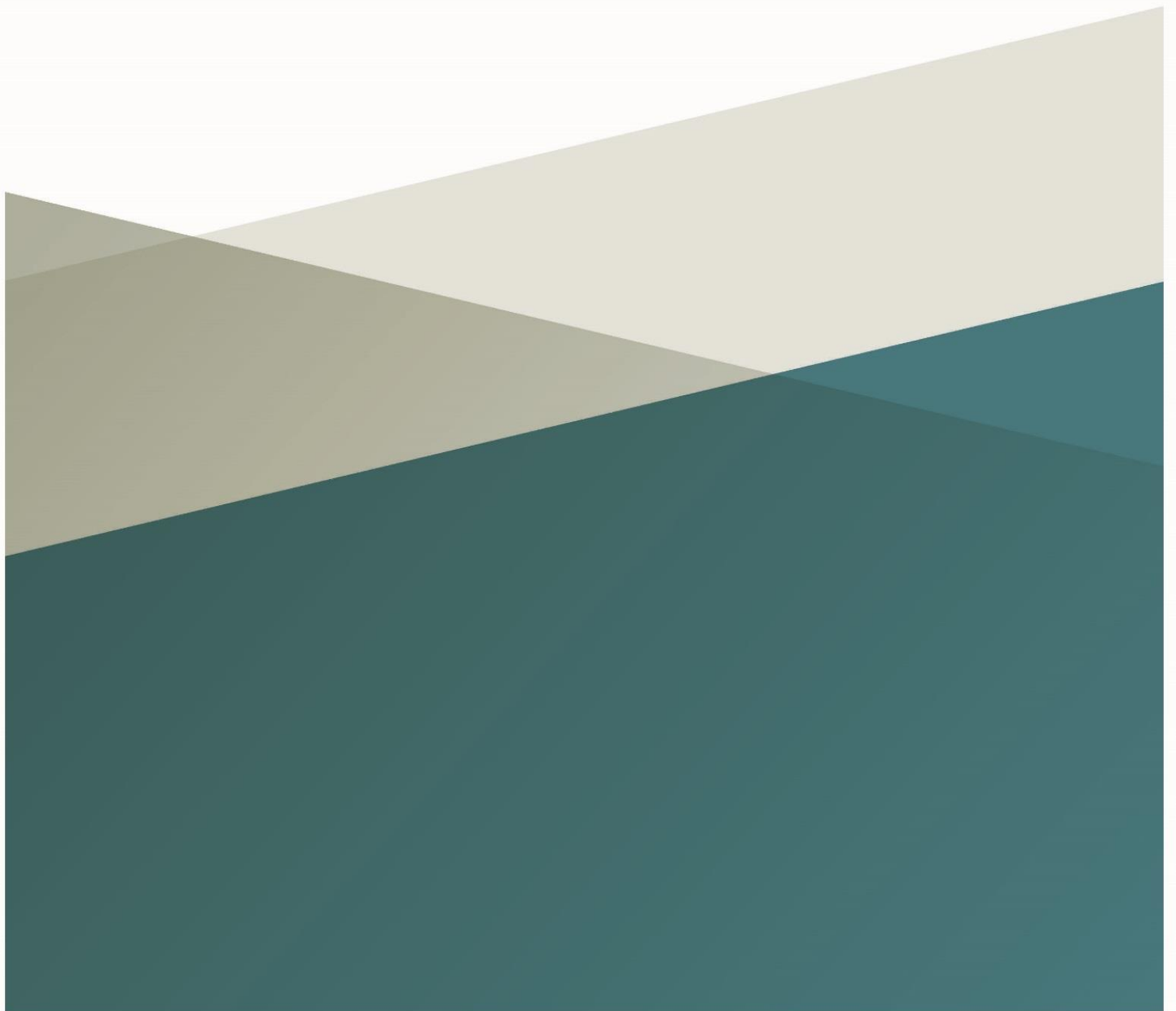Department of Public Expenditure and Reform

Department of Public Expenditure and Reform
Resource Efficiency Action Plan 2019

Contents

Section 1   Introduction

Green Government Decision

In January 2019, the Government decided that Government Departments and Public Bodies will lead the way in reducing generation of single use plastics (SUPs) and waste. The Decision recognises that the Civil and Public Service must demonstrate their commitment to sustainable development and use its influence to persuade others of the changes required to reduce our impact on the environment.

The Government decision requires that Departments:

- with immediate effect, shall not to purchase, directly or indirectly, single use plastic beverage containers, cutlery or straws,[1] and
- by 30 June 2019, shall develop a Resource Efficiency Action Plan (REAP) for publication.[2]

In addition, the Office of Government Procurement (OGP), which is a division of the Department of Public Expenditure and Reform, and the Minister for Communications, Climate Action and Environment were asked to bring forward proposals on implementing green public procurement as part of national public procurement policy and practice and this Department is to issue a procurement circular to ensure that all Departments and public bodies implement this policy. Details in these regards are set out in Section 7.

Issues for Consideration for REAP

The Department of Communications, Climate Action and Environment (DCCAE) advised that the REAP should consider energy, water and waste resources, including:

- Upgrade office lighting with energy efficient alternatives
- Optimise use of Building Management Systems controls
- Remove general waste bins from individual desks
- Increase number of bins for recycling and composting
- Reduce flow rates on taps
- Discontinue use of single use plastics throughout organisation
- Establish in-house Green Team from staff and management representatives
- Green Team devises and implements Green Action Plan
- Reflect and promote the Department's green credentials

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[1] This obligation applies to all public bodies and agencies under the Department's aegis except where specific public health/hygiene issues arise since March 2019

[2] Public bodies and agencies under the Department's aegis must report to the Minister on the measures they are taking to minimise waste generation and maximise recycling by end November 2019

Section 2   Resource Efficiency Action Plan

The Department of Public Expenditure and Reform (DPER) shares premises with the Department of Finance (DFIN) in the Government Campus (which comprises South Block, 7-9 Merrion Row and 14-16 Merrion Street) and Miesian Plaza on Baggot Street. DPER also has a small number of offices, which accommodate circa 8% of its staff, in St Stephen's Green House on Earlsfort Terrace, in North King Street and in Government Buildings in Tullamore. DFIN has primary responsibility for facilities management in respect of these premises for both Departments, through its Facilities Management Unit (FMU).

Two divisions of DPER, the Office of Government Procurement (OGP) and the Office of the Chief Information Officer (OGCIO), share premises at Spencer Dock, Dublin 2 with two other bodies. One of these bodies is the anchor tenant and has primary responsibility for facilities management issues and holds the contracts for waste disposal, cleaning and utilities for the building.

The OGP also has hub offices, which accommodate circa 20% of its staff, distributed across the following four locations: Trim, Sligo, Limerick and Cork. Waste disposal, cleaning and utilities contracts are managed in Trim, Limerick and Sligo by the anchor tenants, while OGP has its own arrangements in place in Cork.

The initiatives set out in this REAP will be implemented by the Department in conjunction with DFIN in the buildings covered by the DFIN FMU and in liaison with the anchor tenants in its other main locations, and replicated in its smaller offices where feasible. These smaller offices accommodate circa 15% of the Department's total staff and are mostly covered by initiatives being taken by the anchor tenants in those locations.

The REAP will allow an assessment of opportunities to achieve efficiencies in relation to: waste production, management and prevention; the reduction of energy bills and charges; heat recovery; optimisation of equipment use; lighting efficiency; and water efficiency. It will also provide opportunities to improve the awareness of management and staff in relation to these matters. Key headline issues to be addressed are as follows:

Energy
Energy management processes and costs, the Building Management System (BMS), thermal energy usage and energy awareness levels amongst staff are reviewed.

Water
Water usage and management processes and costs, including current costs and water infrastructure are reviewed.

Waste
Waste management processes including reuse, recycling and disposal, costs of collection, breakdown of waste by type and an overview of waste infrastructure are reviewed.

Management
The audit reviews the environmental management system in place, if any, and makes relevant recommendations that typically include the development of an action plan and monitoring programme for delivery of specific environmental Key Performance Indicators.

Appendices 1-4 briefly outline improvements that may be made in these areas.

It is important to note that this iteration of the Department's REAP represents the issues identified as most pressing at the time of sign-off (June 2019). The document is intended as a living and dynamic document which will evolve over time.

Section 3   Efficiencies Recently Introduced

As noted above, DFIN has primary responsibility for facilities management, through its Facilities Management Unit (FMU), in respect of the Government Campus premises for both Departments. The FMU has undertaken a substantial programme of work in recent years to upgrade the facilities it shares with DPER and the work in this regard is set out below. It should be noted that while there have been substantial improvements, FMU is restricted in relation to further resource efficiencies that it can introduce on the Government Campus due to the heritage status of these buildings.

Upgrading Office Lighting

Energy efficient LED alternatives were identified for the lighting system when South Block in Government Buildings was upgraded in the recent past. This system includes motion detection which automatically stiches off the lights when there is no occupation in the offices and common areas such as and corridors etc. It has been designed so that variable lighting levels in offices can be set by officers, thus reducing energy consumption and potential for over-lighting.

Window Cleaning

In order to maximise the natural light as much as possible, FMU undertakes regular cleaning of the windows. Going forward, green procurement will be applied in sourcing a new cleaning contractor when the current contract expires.

Optimising Building Management System Controls

The Department has staff in place in the Miesian Plaza facility since 2018. This building has achieved the highest level *Leadership in Energy and Environmental Design* (LEED) accreditation, and the Department is an active participant with all tenants to ensure that this standard is maintained.

A limited Building Management System (BMS) is in place in 7-9 Merrion Row, which manages the heating system for the building. The other Departmental locations in South Block and 14-16 Merrion Street are heritage buildings and do not have up-to-date BMS in place. However, the Department will continue to work with the FMU and OPW to ensure that as new technologies come on-stream they are considered for incorporation into these buildings.

Discontinuation of SUPs

In advance of the Government decision on Single Use Plastics (SUPs), the Department introduced travel mugs and aluminium bottles in conjunction with FMU to encourage staff to reduce their use of takeaway coffee cups and single use water bottles. This is an ongoing programme and DPER in conjunction with FMU will continue to ensure that new staff joining the Department are provided with both reusable mugs and bottles.

FMU is working closely with its contracted facilities management company, responsible for running the onsite canteen and cleaning the buildings in Government Buildings, to engage in the development and success of the REAP. Since March 2019, no SUPs are supplied in the canteen, and all in-house catered meetings are supplied with jugs of water and associated glassware.

Plastic cups used for the water fountains have been removed. The exception to this is in the main reception area; plastic cups used here are fully recyclable and reusable. FMU are investigating the best compostable options for the future which may see the total elimination of any plastic products from its inventory.

Assignment of Staff to Energy Efficient Buildings

Both DFIN and DPER have achieved resource efficiency gains through the movement of staff in recent years from older buildings to more modern - resource efficient - buildings, such as Miesian Plaza.

Two divisions of DPER, the Office of Government Procurement (OGP) and the Office of the Chief Information Officer (OGCIO), representing circa 30% of the Department's staff, are located in modern, resource efficient premises in Spencer Dock, Dublin 2.

Section 4   Promoting REAP

Co-ordination of REAP

The DPER has designated an officer (Mr Kieran Sheedy of the Corporate Governance Unit) to lead on implementing the Green Government Agenda within the Department and to work with relevant officials and anchor tenants, as well as the OPW and the Department of Communications, Climate Action and Environment, on the best ways to maximise and extend efforts under the REAP.

Green Committee

DFIN established a Green Committee in April 2019 and DPER is represented on it. Developments with the Committee can be found through a dedicated online Hive site and include proposals to broaden awareness of the Government Green Agenda.

DPER is working with FMU to incorporate all feasible proposals from the Committee that can reasonably be implemented as part of the Department's REAP.

Education and Training

DPER recently hosted a workshop on Recycling & Waste prevention, as part of its "Lunch and Learn" series, where tips on how and what to recycle and how to reduce waste were outlined.

The Department will hold further awareness and training initiatives to set out the rationale for the introduction of each measure as the REAP is rolled out.

Corporate Social Responsibility

More broadly, the Department supports the corporate volunteering initiatives developed through the DPER/DFIN Social Club, such as An Taisce's Clean Coasts or those driven by local action groups.

As appropriate, the Department will consider other endeavours which combine green initiatives with the spirit of corporate social responsibility.

Section 5   Waste Management

The Department currently uses general waste bins and recycling bags in each office space in every Government Campus building. Since its opening in 2018, Miesian Plaza has instituted a policy of waste segregation. In an effort to increase waste stream separation, and harmonise efforts across its locations, the actions below will be delivered in the course of 2019 for the Government Campus and extended to smaller locations as feasible. The actions will be delivered in tandem with an education and raising awareness initiative setting out the rationale for the introduction of each measure.

In Spencer Dock and all other OGP premises, green bins for recyclable items are provided on all floors and waste toner cartridges are picked up regularly for recycling and broken/ outdated IT equipment is recycled or reused. Washable crockery/glassware and utensils are provided in all kitchen areas in all locations instead of plastic. All staff were issued with a reusable aluminium cup and reusable water bottle to minimise use of disposal cups. In the Trim Office, staff are charged in the canteen for the use of paper cups and the price for coffee is less if they use their own washable mug.

Waste Segregation

The current waste segregation within the Government Campus could be improved upon by centralising its collection at designated points throughout each building. FMU has liaised with colleagues in other Government Departments and researched the segregated waste bins available on the market in order to identify the best option for the Department's needs.

A clean and slim option identified would include a 3- and/or 4-way segregation to cover general, organic, recyclable and - possibly - liquid waste. Such bins would be strategically located so as to limit the visual impact into general corridors, and minimise intrusion in more public areas of the Department.

Organic Waste

Food/organic waste stream was, until recently, collected as part of the general waste. "Brown" bins were identified as simple solutions for collecting food or other organic waste such as teabags, coffee granules etc. being disposed of as general waste. The Department, in conjunction with FMU, has begun rolling out new 10 litre "brown" bins, lined with biodegradable bags, to each of the tea stations, kitchenettes and the canteens. The success of this initial rollout may result in additional bins or, as above, integrated into a slim line recycle station. The expected date for rollout of these is Q4 2019.

Section 6   Energy Management

The refurbishment of South Block included the move to introduce low-energy, LED lighting in as many locations as possible.   The environmental benefits include much lower energy consumption. Given the heritage building status of the Department's shared buildings on Merrion Street, there are limited options for other energy saving measures.

As already noted, the Miesian Plaza building and Spencer Dock locations are modern, resource efficient, premises and there are limited options for further energy saving measures. The Spencer Dock premises for example has an online electricity monitoring system which allows the OGP to monitor energy usage and identify peak demand times and any unusual consumption patterns. There are also automatic motion sensing lights on all floors with lights timed to go out when there is no activity in the Spencer Dock premises. This is also the case in the Trim and Sligo locations. Staff are reminded periodically by Corporate Services to switch off their P.Cs, unplug chargers, switch off equipment etc. when leaving the premises.

Hand Dryers

In addition to improved segregation of waste outlined in Section 3, the Department, in conjunction with FMU, will seek to reduce the volume of waste from paper handtowels through the introduction of energy efficient hand dryers.   While there will remain a small need for such products, it is the intention to significantly reduce dependence upon them.

Internal ICT Services

The Office of the Government Chief Information Officer (OGCIO) has introduced managed print services in respect of the Department's main buildings. By default, all printing is set to monochrome and to double-sided printing, to save on paper and on the use of colour toners. Further savings on paper, toner and savings in energy usage are achieved as documents are only printed when the user specifically authorises the printer to release it (which must be done at the printer) and those not released in this way are automatically deleted from the print queue after 24 hours. It is estimated that combined savings in respect of paper, toner and energy usage on foot of this initiative amount to over 30%.

The OGCIO has examined the option of forcing PCs to shut down as opposed to forcing them into sleep mode at the close of business each evening. It was decided to implement forced sleep mode as data from device manufacturers show a negligible difference in power use between sleep mode and power off mode for PCs used by the vast majority of staff and sleep mode does not carry the operational disruption and data loss risks associated with the forced shut down approach.

Centralised ICT Services

Under its Build to Share (Desktop) Programme, the OGCIO is delivering a standard range of common end-user ICT services to over 2,300 users across more than 20 locations nationwide and plans are progressing to on-board further Government Departments/Offices. These include PCs/ hybrids, mobiles, office productivity suite and email services, telephone and video conferencing and user support services, as well as all of the associated underpinning infrastructures such as managed internet access and cyber security services.

As part of the procurement process for ICT devices in this context, details of green/energy efficiency requirements are included as requirements and a scoring award criteria. Also included are minimum green/energy standards to which devices must adhere.

In relation to the provision of ICT servers and server rooms, the Build to Share approach negates the requirement for other bodies to have local infrastructure, thus greatly reducing

physical server footprint, and facilitates the move away from legacy systems and the early adoption of new and emerging technologies which are more resource efficient. Unified Communications in the Build to Share (Desktop) service also facilitate Video Conference meetings, which assists on cutting down on the requirement for staff to travel.

The OGCIO are also working to optimise computer server resources including by reducing the total number of physical servers, virtualising multiple physical servers, consolidating storage, increasing operating temperatures in server rooms and utilising air conditioning units more efficiently.

In relation to network services, the OGCIO approach minimises the number of switches per building through the delivery of Wide Area Networks and Local Area Networks through shared equipment and the selective use of Power over Ethernet (PoE) switches and ports reduces the communication network footprint.

In relation to device destruction, the OGCIO goes to the market regularly to award a device destruction contract to a recognised device destruction company and security and their commitment to green re-cycling is part of the award criteria. In addition it gets certification of destruction for each device which attests to the green and secure destruction of each device. Its recycling partner is ISO 14001 certified - an international standard that specifies requirements for an effective environmental management system.

The OGCIO's Government Data Centre initiative will present further opportunities for sharing of infrastructure and facilities enabling public service bodies to locate their ICT infrastructure in a purpose-built, green, Government owned and run facility. The design phase is complete and the planning application has been submitted.

Section 7   Green Procurement

Internal Procurement

The Department recognises its responsibility to promote green procurement and support Ireland's environmental and wider sustainable development objectives. In this regard, the Department will work with the Office of Government Procurement insofar as possible in relation to Green Public Procurement (GPP). Where possible it will engage in sourcing goods, services or works that can demonstrate reduced environmental impacts on wider society. An additional important factor that will be considered is that these goods/services/works must represent both short-term and long-term value for money for the Department and Exchequer.

As an aid to this, the Department will liaise with and utilise guidance provided by the Department of Communications, Climate Action and the Environment including the *Green Procurement Guidance for the Public Sector* published by the Environmental Protection Agency. The Department will also refer to the Office of Government Procurement's *Information Note on Incorporating Social Considerations into Public Procurement.*

Centralised Procurement

The Office of Government Procurement (OGP), which is a division of DPER, and the Minister for Communications, Climate Action and Environment are developing proposals on implementing green public procurement as part of national public procurement policy and practice and DPER will issue a procurement circular to ensure that Departments and Offices implement this policy.

It is intended that the circular will request Departments and Offices to consider including green criteria in their procurements where such clearly defined, quantifiable, verifiable and measurable criteria have been developed by the Department of Communications, Climate and the Environment.

As a central purchasing body, the OGP is also working to facilitate the implementation of green public procurement. Procurement procedures including frameworks developed by the OGP will be assessed as they arise to take full account of Government targets in relation to sustainability.

Appendices

Appendix 1: Energy Action Plan

Identify main energy users

Why is it important to know your largest energy users? By identifying your business's largest energy users you can get a better understanding of how your business consumes energy. This is an important first step if your business is trying to reduce its energy consumption, as it highlights the main users. Once you know the big users you can take measures to control them better by turning them down or off when not required. Calculate the energy consumed by main users by metering the equipment or calculating (Energy rating (kW) x hours used = Consumption in kWh).

Set fridges and freezers to operate at optimum temperatures

Heating, ventilation and air conditioning (HVAC) can account for a significant percentage of your energy costs. Manage thermostats and time-clocks to prevent overheating and over-cooling of air temperatures in your business. Reducing set temperatures by 1 oC can reduce total heating costs by up to 10%. Avoid cooling and heating in the same space at the same time.

Train staff to turn off energy using equipment when not in use

Put in place a plan to train staff to turn off equipment when not required (e.g. ovens, fans, air conditioning systems, lighting, PCs etc.). This will help to minimise excessive energy consumption within your business, saving you money. Use signage and checklists to encourage staff to turn off the main energy users when not required.

Appendix 2: Water Action Plan

Undertake the "Overnight Leak Test" and identify potential water leaks
Meter readings should be checked regularly to see if there are any large volumes of water being consumed in areas or at times when there shouldn't be as this may indicate a leak. An easy way to check for any leaks is to perform an "Overnight Test". Take a reading from your water meter before you leave for the night and then take another reading first thing the next morning before any equipment is switched on or used. If there is any difference between the two readings this could indicate a leak in the system. Make sure any leaks identified are fixed immediately as even a small leak can become very expensive over time.

Take measures to reduce flush volumes in toilets and control urinal flushing
Great savings can be made by installing displacement devices in all toilets to save water when flushing. Dual flush cisterns are also recommended to reduce flush volumes even further. If your business has a large number of urinals their flush rate could be greatly reduced by installing devices such as occupancy sensors or timers. Waterless urinals can also be considered for further savings.

Review flow rates and reduce where feasible
Review flow rates in taps, showers, hoses and other water using devices and reduce where possible. Aerators are a cheap and simple way of immediately reducing the flow rate of taps to 3-5 litres per minute.

Consider options for use of rainwater and process water reuse
Rainwater can be harvested from the roofs of building, then stored in tanks and pumped for use in toilets, washing of yards and trucks, and even laundries. As long as there is not a hygiene risk, rainwater and some waste waters from processes can be used to replace expensive potable water.

Appendix 3: Waste Action Plan

Take measures to minimise packaging delivered to your business
Packaging waste generally represents a large percentage of most business's total waste, so it is important to consult with your supplier to see if there is any way they can reduce the amount of packaging supplies are delivered in and to ensure all packaging is recyclable. Ask if it is possible for deliveries to be supplied in reusable crates or other forms of packaging that can be sent back to the supplier. The more packaging you can reduce from your suppliers, the greater the savings in waste management costs. "Try to purchase goods in bulk where possible. This will reduce the amount of packaging generated and the produce should also be cheaper."

Measure and monitor food waste produced and take measures to minimise
Make sure there is a separate, clearly labelled bin for food waste. Collecting food waste separately is a legal requirement, but allows you to see what food wastes you are producing. Sometimes the quantities can be surprising, especially when you consider what food waste is costing your business. "Every tonne of food waste produced can cost a business up to €3,000 when you consider the value of raw materials, energy, and wasted labour, as well as disposal costs."

Train staff on the waste segregation and waste minimisation requirements of your business
Provide staff with training on what waste management procedures are required in your workplace. Use posters or signage to promote awareness on best practice measures. Seek suggestions from staff for improved waste management measures through suggestion schemes, and reward for suggestions adopted

Appendix 4: Management Action Plan

Create Resource Efficiency Metrics for your business
Resource Efficiency Metrics can be generated for any business and are a measure of your business's consumption of resources against the level of activity in your business. This allows you to benchmark your consumption against other businesses in the same sector. For example, the average Irish Hotel uses 300 litres of water per sleeper. Metrics also allow you to monitor improved efficiency in your business over time.

Appoint a member of staff to be the "Resource Efficiency leader"
Appoint a member of staff to be the "Resource Efficiency Leader" and give them authority to identify opportunities for resource efficiency and to develop and implement resource efficiency action plans. This person should be given the support of management (in terms of finance and time). This person should establish a "Resource Efficiency Team" consisting of key staff which may include the general manager, facilities, environmental or maintenance manager, finance manager and other line managers.

Gain third party certification
Gaining third party certification for your business will improve competitiveness, reduce your environmental footprint improve your resource efficiency and ensure the changes you make will remain in place. There are a number of International and national certification programmes which can be adopted.

Consider Green Procurement
When purchasing goods, services, works and utilities your business should consider impacts on the environment, aim to buy locally to reduce transportation costs, and assess the environmental impacts of raw materials etc. Refer to Green Procurement Guidance for Public Sector.

Appendix 5: Resource Efficiency and Cost Saving Recommendations

Action	Officer Responsible	Completion due date
Energy		
Identify main energy users		
Set fridges and freezers to operate at optimum temperatures		
Set fridges and freezers to operate at optimum temperatures		
Train staff to turn off energy using equipment when not in use		
Water		
Undertake the "Overnight Leak Test" and identify potential water leaks		
Take measures to reduce flush volumes in toilets and control urinal flushing		
Review flow rates and reduce where feasible		
Consider options for use of rainwater and process water reuse		
Waste		
Take measures to minimise packaging delivered to your business		
Measure and monitor food waste produced and take measures to minimise		
Train staff on the waste segregation and waste minimisation requirements of your business		
Management System		
Create Resource Efficiency Metrics for your business		
Appoint a member of staff to be the "Resource Efficiency leader"		
Gain third party certification		
Consider Green Procurement		

Appendix 6: Acronyms

BMS	Building Management System
C&AG	Office of the Comptroller and Auditor General
CGU	Corporate Governance Unit
DCCAE	Department of Communications, Climate Action and Environment
DFIN	Department of Finance
DPER	Department of Public Expenditure and Reform
FMU	Facilities Management Unit, Department of Finance
GPP	Green Public Procurement
OGCIO	Office of Government Chief Information Officer
OGP	Office of Government Procurement
REAP	Resource Efficiency Action Plan
SUPs	Single Use Plastics