

Foreword



A Message from the Ministers



Green Tenders, an Action Plan on Green Public Procurement, is the first such Action Plan to be introduced in Ireland. Its overall objective is to assist public authorities to successfully plan and implement green public procurement (GPP) by highlighting existing best-practice and outlining further actions to boost green public procurement.

Government consumption accounts for a sizeable part of economic activity and demand. The annual public sector procurement budget accounts for 10% to 12% of Ireland's GDP. In monetary terms, this equated to about €14 billion in 2011. This provides Ireland's public sector with considerable leverage to stimulate the marketplace in favour of the provision of more resource-efficient, less polluting goods, services and works.

The Public Sector has a responsibility to exercise this leverage, in order to support Ireland's environmental and wider sustainable development objectives. GPP is widely recognised internationally as an effective means for public administrations to manage the balance between cost effectiveness and sustainable development. Citizens need to be sure that what is procured on their behalf is procured in such a way as to eliminate harmful effects on the environment and society. At the same time, these goods, services and works must represent both short-term and long-term value for money.

The integration of green public procurement principles will further enhance Ireland's reputation as an innovative, eco-efficient, open and forward-looking place to do business. Many of our public authorities have already made good progress in this regard as exemplified by the examples of best practice cited in this Action Plan.

For suppliers and other private sector stakeholders, the business case for green procurement is really quite simple. Suppliers to public sector clients who subscribe to sustainability – and most do at this stage – will need to be able to demonstrate the suppliers' own sustainability credentials. Many Irish companies have realised how strategically important this is for their competitiveness into the future. They clearly understand the role to be played by green procurement policies here at home in preparing them to compete successfully in our export markets.

This initiative should also be viewed in the context of the Government's recently announced Public Service Reform Plan which contains a suite of measures in relation to public procurement. Reform of the public procurement function is, and remains, driven by the need to obtain maximum value for public money in procuring works, supplies and services. This Action Plan is therefore a major milestone, not just in effectively introducing a sustainable development mindset within public procurement practices, but also in ensuring that taxpayers' money is spent wisely.

We commend Green Tenders to the public procurement practitioners in all our public sector bodies, as well as to their partners throughout their supply chains, in business and in civil society. This buy-in from all stakeholders will be crucial in ensuring the success of Green Tenders.

Brendan Howlin, TD

Minister for Public Expenditure and Reform

Phil Hogan, TD

Minister for the Environment, Community and Local Government

Table of Contents

Part I • The Framework for Green Public Procurement	2
Chapter 1: Introduction	3
Chapter 2: EU Policy and Context	5
Chapter 3: National Policy and Context	9
Chapter 4: Process	14
Chapter 5: GPP Targets for Ireland	19
Part II • Green Public Procurement in Key Sectors	21
Chapter 6: Construction	22
Chapter 7: Energy	28
Chapter 8: Transport	34
Chapter 9: Food and catering services	40
Chapter 10: Cleaning Products and Services	45
Chapter 11: Paper	48
Chapter 12: Uniforms and other Textiles	51
Chapter 13: ICT	54
Part III • Implementation and Monitoring	58
Chapter 14: Next Steps and Follow-up	59
Appendices • List of Key Actions	61

Part I

The Framework for Green Public Procurement

Chapter 1: Introduction



The **Programme for Government 2011**¹ envisages public procurement as a tool to support innovative Irish firms. In the health and education sectors, the Programme specifically commits to achieving greater value for money in public procurement, for example through greater efficiencies in the construction of facilities and through pooling back-office functions such as ICT procurement. In accordance with these commitments and with the Government's wider sustainable development objectives, the Irish public sector needs to play an exemplary role in green public procurement (GPP) throughout its spending profile. This Action Plan on GPP – Green Tenders – aims to make that vision a reality.

Green Tenders must also be viewed in the wider context of the **National Reform Programme**², which provides the blueprint for a return to sustainable growth in Ireland's economy. Intrinsic to that national effort is the drive towards 'greening' our economy through the deployment of a range of policies and strategies in areas such as energy efficiency, renewable and greenhouse gas mitigation, as Ireland seeks to make the transition to a low carbon, competitive, climate resilient economy. The promotion of GPP is part of this suite of policy instruments and can serve as a significant force for change in that context. Public procurement can shape production and consumption trends and generate significant demand for greener goods in that way enlarging markets for environmentally friendly products and services.

GPP can also be a driver for innovation and competitiveness in the industrial sector as it promotes the development of new technologies and can provide a competitive advantage for emerging companies in the small and medium enterprise (SME) sector. The process of economic transformation now underway in Ireland will provide such opportunities and help SMEs achieve competitive advantages e.g. proximity to recovered waste resources in the supply of lower cost input materials.

There is also an important EU context particularly in terms of the fundamental objective of achieving sustainable development an objective shared by Ireland and the wider European Union. The Treaty on the Functioning of the European Union states that environmental protection requirements "*must be integrated into the definition and implementation of the Union policies and activities, in particular with a view to promoting sustainable development*"³. Policies for sustainable consumption and production are central to the European Union's

commitment to sustainable development. This reflects the fact that our patterns of production and consumption of goods and services have widely come to be seen as unsustainable. Economic growth needs to be decoupled from negative environmental impacts, in order to preserve our planet's finite natural and eco-system resources for the benefit of future generations. To this end, GPP policy must take account of the increasingly large and complex body of EU environmental policy and legislation which seeks to reduce the pressure on our biodiversity and eco-system resources.

GPP is central to the **Europe 2020 Strategy**⁴, which considers sustainable growth or "*green growth*" to be at the heart of a resource efficient future for Europe. Apart from averting the economic dislocation caused by unchecked climate change, investment in resource efficiency will generate gains in areas such as air quality, human health, energy security, and commercial opportunities in markets for environmental goods and services. Accordingly, the Europe 2020 Strategy calls for the promotion, at EU and national level, of policies that favour "*eco-innovation and energy-efficient products and systems... including emission trading, tax reform, subsidies and loans, public investment and procurement...*"⁵.

Definitions of green and sustainable procurement

The importance of public procurement⁶ to the marketplace makes GPP a key instrument in attaining the vision set out in the Europe 2020 Strategy. The public service across Europe spends approximately 16% of the EU's Gross National Product on purchasing a large volume of products, services and works. In Ireland, the total public sector purchasing power is currently about €15 billion per year – some 12% of GDP. The scale of this procurement offers an additional and powerful policy instrument alongside more traditional instruments such as regulation, policy direction, and economic mechanisms like taxation, to "move the market" in favour of the provision of more eco-efficient, less environmentally-harmful goods and services. By taking into account environmental criteria in its procurement procedures contracting authorities promote modes of production that are more environmentally friendly and stimulate greater supply of 'green' goods and services.

Accordingly, GPP is a process whereby public and semi-public authorities meet their needs for goods, services, works and utilities by seeking and choosing outcomes and solutions that have a reduced impact on the environment throughout their estimated economically-useful life, as compared to alternative products/solutions⁷. Prices of the goods/services/products should reflect environmental costs. GPP involves the integration of environmental criteria into public procurement processes. In specifying such criteria public authorities encourage the spread of environmental technologies and the development of environmentally sound products. Where possible, public procurement policies should encourage the use of all types of environmentally friendly products – energy efficient, water conserving, recyclable, non-toxic, and low in emissions of volatile organic compounds.

Ultimately, GPP is a policy tool for sustainable development and environmental issues are only one aspect of this. For this reason, several of the actions set out in this Plan take account of emerging international trends whereby the sustainability of procurement policy is gauged in terms of social and economic as well as environmental impacts. Sustainable public procurement generally refers to the inclusion of environmental, economic and social criteria in the procurement of goods, services and works by public sector organisations⁸.

The European Commission has recently published *Buying Social*, a guide to socially-responsible public procurement⁹. A similar development is ISO 26000 – Guidance on Social Responsibility, a newly-established voluntary ISO Standard¹⁰. Social responsibility is defined as the responsibility of an organisation for the impacts of decisions and activities on society and the environment through transparent and ethical behaviour that:

- Contributes to sustainable development including health and the welfare of society;
- Takes into account expectations of stakeholders;
- Is in compliance with applicable laws and consistent with international norms of behaviour; and
- Is integrated throughout the organisation and is practiced in its relationships.

Sustainable procurement is thus a long-term aim of the Europe 2020 Strategy. Within that rubric, GPP policies are integral to the development of EU and national policies around the Green Economy. It is intended that Green Tenders will position Ireland to make a major contribution to this end.

Chapter 2:

EU Policy and Context



The legal context

It is recognised that the implementation of policies to advance GPP takes place in the context of the rules of the European Union's Single Market and especially the corpus of legislation dealing with public procurement. The extent to which environmental and social criteria may be included in tenders and contracts for public sector procurement was clarified by **EU Directives 17¹¹** and **18¹²** of 2004. These directives allow for such criteria, provided that they *"are linked to the subject-matter of the contract, do not confer an unrestricted freedom of choice on the contracting authority, are expressly mentioned and comply with the fundamental principles¹³ [of the Treaties]"*. With these caveats the public procurement directives state *"how the contracting authorities may contribute to the protection of the environment and the promotion of sustainable development [in accordance with Article 11 of the Treaty on the Functioning of the European Union] whilst ensuring the possibility of obtaining the best value for money for their contracts"¹⁴.*

Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan

The EU's **Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan (SCP/SIP Action Plan)¹⁵** brings together and further develops, inter alia, the **Thematic Strategy on the Prevention and Recycling of Waste¹⁶**, the **Thematic Strategy on the Sustainable Use of Natural Resources¹⁷**, the **Eco-Design for Energy-Related Products Directive¹⁸**, environmental technology verification¹⁹, as well as the GPP agenda and the Regulations on the **EU Ecolabel²⁰** and on the **Eco-Management and Audit Scheme²¹** (EMAS) system. Key challenges to be addressed under this EU Action Plan include leveraging innovation; better products; smarter consumption; and global markets.

The new **Waste Framework Directive²²** places a strong emphasis on national waste prevention programmes. Annex IV of the directive lists examples of waste prevention measures including: *"In the context of public and corporate procurement, the integration of environmental and waste prevention criteria into calls for tenders and contracts, in line with the Handbook on environmental public procurement published by the Commission on 29 October 2004"*.

The EU's renewed **Sustainable Development Strategy²³** commits EU governments to *"aiming to achieve by 2010 an EU average level of green public procurement equal to that currently achieved by the best-performing Member States"*. This target was made more specific in the **Commission's Communication on Public Procurement for a Better Environment²⁴** in which the Commission proposes a 50% target for each Member State to be reached from 2010. In September 2008, the European Council welcomed this political indicative target of 50% GPP tendering per Member State leaving the Member State the flexibility *"to define its own targets in every sector to contribute to the overall 50% target"* and *"to apply more ambitious GPP modalities"²⁵.*

The European Commission, in partnership with the Member States, industry, environmental and social NGOs and other stakeholders, has developed a dedicated website on GPP²⁶ that includes information on how, in practice, Member States can attain these targets. Notably, the Commission distinguishes between *core criteria* and *comprehensive criteria*, as follows:

- Core criteria are those suitable for use by any contracting authority across the Member States, and address the key environmental impacts. They are designed to be used with minimum additional verification effort or cost increases.
- Comprehensive criteria are for those who wish to purchase the best environmental products available on the market. These may require additional verification effort or some increase in purchase cost compared to competing options fulfilling the same function.

Both core and comprehensive criteria have been developed for a range of commonly-procured product and service groups. The process of developing these criteria and identifying new priority products for GPP is ongoing.

Life cycle thinking

Green Tenders seeks to promote life-cycle thinking, in conformity with that supported by current Government guidelines on, e.g. appraisal of capital projects and cost benefit analysis²⁷. Analysis on this basis enables public procurers, their suppliers and the other procurement stakeholders, better to take into account the longer-term environmental impacts associated with the purchase and all associated costs, operating costs and end-of-life of goods and services. In addition, the Irish public sector must

be mindful of EU and international developments in the area of life cycle analysis.

The European Commission promotes research projects to facilitate Life Cycle Assessment²⁸, by attempting to quantify the life cycle costs of emissions, resources consumed and environmental and health impacts that are associated with particular goods and services. Methodologies for life cycle costing take into account the four main cost categories of standard financial costings using market-based pricing valuations – investment, operational, maintenance and end-of-life/disposal expenses, in addition to which they aim also to include in the analysis values in respect of external environmental factors. Environmental costs may be derived from analyses of environmental impacts, for example, by estimating the quantity of greenhouse gas emissions and the global warming potential associated with emissions of different greenhouse gases, then multiplying it by a value for carbon. In some instances it may be possible to estimate environmental costs in respect of acidification (grams of SO₂, NO_x and NH₃), eutrophication (grams of NO_x and NH₃), land use or other quantifiable externality impacts²⁹.

Methodology

At international, EU and national level, there is a need for more research into life cycle analysis methodologies. For example, impacts on ecosystems are not included in the European Commission's consideration of environmental life cycle costing "*due to lack of data*"³⁰. Nonetheless, it is widely acknowledged that accounting for the cost of carbon, where practicable, is an essential element of such methodologies.

Life cycle thinking is also essential to a growing number of instruments intended to enhance sustainable consumption and production. Among these instruments are eco-design, ecolabels, carbon foot-printing, environmental management systems, and life cycle-based indicators for monitoring sustainable consumption and production. Two of these instruments – environmental management systems and the EU Ecolabel – are discussed in more detail below.

Environmental Management Systems (EMS)

Environmental management is the process of managing the environmental issues associated with an organisation's activities. Environmental management is based on the

concept of continuous improvement of an organisation's performance in this area. In this way, an environmental management system continuously changes in line with the organisation's activities as well as external influencing factors such as environmental legislation, changes in technology or market pressures. The dynamic nature of this process allows organisations to improve their performance at the rate and to the level that is appropriate to them. Some EMS schemes can be certified and hold third party accreditation – e.g. ISO 14001³¹ and the Eco-Management and Audit Scheme (EMAS).

For the supplier, an environmental management system can be used as a way of demonstrating green credentials to the contracting authorities. It can be used as proof of the supplier's technical and professional capacity to perform the environmental aspects of a contract to the required level. When services and works contracts call for the adoption of specific environmental management measures during their execution (e.g. construction, catering or other service contracts), the contracting authority can, by means of a selection criterion, ask bidders to demonstrate their capacity to apply such measures for the duration of the contract. In such cases, registration under a certified scheme should be recognised as proof of compliance with this selection criterion. Verification can also be demonstrated by an environmental policy, with documented work instructions and procedures for carrying out the service in an environmentally friendly manner.

Energy Management Systems

Energy management systems such as I.S. EN 16001 and ISO 50001 are used widely among larger enterprises in Ireland which seek to gain international recognition as being world class in terms of their management of energy. Public bodies who are large energy users would also benefit from adopting a formal energy management system³².

The EU Ecolabel ("The Flower")

The **EU Ecolabel**³³ is a voluntary scheme to encourage businesses to market products and services that are kinder to the environment. At the heart of the EU Ecolabel is the idea of encouraging producers to go beyond legislation in reducing the impact of their production methods and the products they make. Products and services awarded the Ecolabel carry the "Flower" logo, allowing purchasers to identify them easily. Product groups covered by the Ecolabel include cleaning products, appliances, paper products, textiles, home and garden products, lubricants,

and services such as tourist accommodation. Criteria are not based on one single factor, but on studies which analyse the impact of the product or service on the environment throughout its life cycle, from raw material extraction through to production, distribution, life in use and disposal³⁴.

The EU-approved core criteria for green public procurement are often based on Ecolabel criteria. The European Commission commits to using the Ecolabel to encourage the sustainable consumption and production of products by *“setting benchmarks for the good environmental performance of products and services, based on the top performers in the market”*. A fundamental element of the credibility of the EU flower is that it is a Type I label in the ISO system, involving third party stakeholders and independent verification. The EU Ecolabel contains a wide range of environmental criteria and public procurers can “cherry pick” which of these criteria to specify in their contracts. It must be emphasised that while these labels may be referenced to indicate required standards they may not be specified as a requirement since this could be considered restrictive. Suppliers and services providers must be permitted to show they meet the equivalent standard without possession of the label.

Chapter 3:

National Policy and Context



The legal context

As previously stated, the extent to which environmental and social criteria may be included in tenders and contracts for public sector procurement was clarified by **EU Directives 17**³⁵ and **18**³⁶ of 2004. Directive 17 was transposed into Irish law by S.I. 50 of 2007³⁷ while Directive 18 was transposed by S.I. 329 of 2006³⁸. These regulations provide that criteria adopted by public procurers contracting on the basis of most economically-advantageous tender (MEAT) shall be *“linked to the subject matter of the contract”* and may include environmental characteristics³⁹. In addition, the weightings by which marks are to be allocated must be stated. If environmental characteristics are specified, this must be done *“with sufficient precision to determine the subject matter of the contract and to allow the contract to be awarded”*⁴⁰.

In certain circumstances, the legislation also allows for public procurers to require their suppliers to hold certification in respect of environmental management systems. Again, any such stipulation must be related to the subject matter of the contract. In this case, the public procurer shall refer either to EMAS or to other European or international environmental management standards. Other environmental management measures that can be proved to be equivalent must be accepted⁴¹.

The economic and value for money context

The public procurement function is, and remains, driven by the need to obtain maximum value for public money in procuring works, supplies and services. To this end, GPP provides for a life-cycle approach to be considered when evaluating costs (i.e. purchasing, operational, maintenance and end-of-life/disposal) at the procurement stage. This enables estimates for savings over a multi-annual timeframe to be targeted for medium and longer-term financial gains. It aims to represent best value for money for using scarce financial resources which are key to long-term economic sustainability. This is most clearly demonstrated in energy efficient products where reduced energy use over their lifetime results in reduced operational costs, for example, energy efficient vehicles, office equipment, appliances and buildings. Implementing the measures in this Plan must be no less economic than alternative traditional procurement methods when assessed over the product’s or building’s economically useful life, having regard to relevant guidelines.

In the case of specific public buildings where limited operational hours apply, the relative impact of such limited operational hours should be factored into the assessment of life-cycle costs.

Existing mandatory requirements concerning GPP

It should be recognised that mandatory criteria introduced to reduce impacts on the environment already apply to public sector bodies. Many products or components which were commonly procured in the recent past (e.g. leaded petrol) would not be considered now. The growing body of national and EU environmental legislation – designed to “decouple” economic activity from harmful impacts – has significant implications for the public procurement regime. For example, public bodies are expected to constantly reduce volumes of waste going to landfill, and this consideration increasingly influences decisions on what to purchase in the first place.

It follows that organisations seeking to integrate GPP considerations into their procurement policies and practices must first ensure compliance with all the relevant laws. In the GPP context, five topical instances of such legal requirements concern energy efficiency; packaging waste; waste electrical and electronic equipment (WEEE); volatile organic compounds (VOCs); and the Clean Vehicles Directive.

Compliance with energy efficiency legislation

Energy efficient procurement is better procurement because it results in financial savings over the useful life of the good and environmental savings. The European Communities (Energy End-use Efficiency and Energy Services) Regulations 2009⁴² require public bodies to fulfil an exemplary role with regard to energy efficiency⁴³. More specifically, the European Union (Energy Efficient Public Procurement) Regulations 2011⁴⁴ oblige public bodies to only purchase equipment from the Triple E⁴⁵ register. Public procurement should take energy efficiency into account. In this way, public procurement will help to enable Ireland’s public sector to meet the 33% energy efficiency improvement target, set for 2020 under the National Energy Efficiency Action Plan.

Compliance with packaging waste legislation

Public procurers should ensure that packaging arising from their procurement is fit for purpose and is minimized to the greatest extent possible. There are also a number of requirements for packaging stipulated in national and EU

law. The Waste Management (Packaging) Regulations 2007⁴⁶ implement the European Packaging Directive (94/62/EC) in Ireland. The Directive promotes prevention of the production of packaging waste as a first priority along with the additional fundamental principles of reuse, recycling and other forms of recovery of packaging waste (such as energy recovery).

In addition to national recovery targets which Member States must meet, all packaging producers must ensure that their packaging meets the stipulations of the Essential Requirements (Article 9 of the Directive and Part VI of the Regulations). These are:

- Manufacturing and composition of packaging – packaging weight and volume must be reduced to the minimum necessary for safety, hygiene and consumer acceptance of the packaged product. It must permit of its reuse or recovery including recycling and minimise impact on environment when residues are disposed of. Hazardous substances and materials must be minimised as constituents of packaging.
- Requirements specific to the reusable nature of packaging – if reuse is claimed, packaging must enable a number of trips or rotations. It must be possible for used packaging to be processed in order to meet health and safety requirements of the workforce, and fulfil the requirements specific to recoverable packaging when the packaging is no longer used and thus becomes waste.
- Requirements relating to the recoverable nature of packaging – packaging must be suitable for that purpose as well as for at least one of the three recovery methods specified, i.e. material recycling, energy recovery or composting/biodegradation

Furthermore, the content of the heavy metals lead, cadmium, mercury and hexavalent chromium may not exceed the concentration limits defined in Article 11 of the Directive and Article 29 of the Regulations. Compliance with the essential requirements is measured against European standards.

Compliance with waste electrical and electronic equipment (WEEE) legislation

In relation to electrical and electronic equipment, any company manufacturing or importing such equipment (defined as a producer) must be registered and demonstrate how it will finance the environmentally sound management of waste electrical and electronic equipment

(WEEE). WEE Register Society Ltd. (www.weeregister.ie/searchproducers.html) provided an updated list of registered producers in Ireland. They must declare that their products do not contain specified hazardous substances and must provide for free take back for the end user. Public sector organisations can therefore achieve savings by availing of free take back by procuring new electrical and electronic equipment from a registered producer⁴⁷ in Ireland and in ensuring that the services and products they are procuring are compliant with the WEEE Regulations. This saves the organisation the financial and practical burden of arranging disposal/recycling of the WEEE. These savings can be substantial in circumstances such as the changeover of computers, servers, catering equipment, medical equipment etc.

Volatile Organic Compounds in the re-spraying or recoating of vehicles

Where public procurement takes place that is not in compliance with the law it constitutes an unacceptable risk to the public body. In the recent past, local authorities have come across cases where public service vehicles are being resprayed, in the course of their repair, in workshops which are non-compliant with statutory restrictions on volatile organic compounds. Under S.I. 199 of 2007⁴⁸, installations which carry out vehicle refinishing for repair are obliged to meet certain mandatory requirements in terms of the products and practices they use to recoat vehicles. It is an offence for such a facility to operate without a valid Certificate of Approval, issued by the local authority. Mobile operators carrying out vehicle refinishing are also covered by these Regulations. Public bodies which manage vehicle fleets should automatically request a copy of a valid and up to date Certificate of Approval from an operator as a precondition to engaging the services of the operator, when such services include the respraying or recoating of a vehicle.

The Clean Vehicles Directive

The Clean Vehicles Directive of 2009⁴⁹ obliges EU Member States to ensure that, as of December 2010, all contracting authorities who are procuring road transport vehicles take into account the operational lifetime energy of the vehicle, as well as certain environmental impacts including energy consumption, emissions of CO₂, and emissions of nitrous oxide (NO_x), non-methane hydrocarbons (NMHC) and Particulate Matter. This represents a significant increase in the requirements placed on public procurers and makes it essential that existing best practice examples are emulated throughout the Irish public sector.

Life cycle thinking

Green Tenders seeks to promote life-cycle thinking, in conformity with that supported by current Government guidelines on, e.g. appraisal of capital projects and Cost Benefit Analysis⁵⁰. Analysis on this basis enables public procurers, their suppliers and the other procurement stakeholders better to take into account the longer-term environmental impacts associated with the purchase and all associated costs, operating costs and end-of-life of goods and services. In addition, the Irish public sector must be mindful of EU and international developments in the area of life cycle analysis.

Methodology

More effective methodologies for putting life cycle thinking into practice are being researched at international, EU and Member State level. Accounting for the cost of carbon, where practicable, is an essential element of such methodologies.

In June 2009, the Department of Finance issued a guidance note to all Government Departments and to the Office of Public Works setting out revised arrangements for the impact of capital investment projects on greenhouse gas emissions. This note stated that future project appraisals should take explicit account of such emissions and include a value to reflect the costs associated with increased emissions (and the benefits associated with reduced emissions) arising as a consequence of the proposed investment. This guidance note stated that (“where relevant, possible and significant”) the six greenhouse gases identified by the United Nations Framework Convention on Climate Change (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride) are to be monetised as carbon dioxide equivalent (CO₂ e) using Global Warming Potential conversion rates. The guidance note recommends the use of market prices.

In order to ensure consistent use of the market price (for monetising carbon dioxide emissions) in projects across the different sectors the Department of Finance has calculated and set the following prices, per tonne, for use in Cost Benefit Analyses:

Year	Price per tonne of CO ₂
2011	€14.61
2012	€15.59
2013	€16.76
2014	€17.93
2015 ⁵¹	€39

These calculations are constrained by uncertainty as to the future cost of carbon (especially beyond 2015). Nonetheless, the Department of Finance guidance note signals the increasing importance of accounting for environmental costs in tandem with social and economic costs.

Market Development Programme for waste resources

Delivering Change, the Government’s 2002 policy statement on waste prevention and recycling⁵², endorsed the “waste hierarchy” model for dealing with Ireland’s municipal and domestic waste. According to this model, waste prevention is the optimal choice followed by minimisation, re-use and recycling. Sending waste to landfill is the least preferable option to be resorted to only if none of the other options is viable. Delivering Change therefore outlined a range of measures to minimise waste generation and to ensure a sustained expansion of re-use and re-cycling. It sought to promote the use of recycled materials through public procurement policies such as ensuring that all public bodies would use recycled paper for routine use. It also addressed the need for stable and economically-attractive markets and outlets for recycled materials. The waste hierarchy has since been given statutory authority.⁵³

The widespread provision of segregated collections for dry recyclables, the increase in the number of bring banks and civic amenity sites, the increased awareness of the environmental benefits of recycling and the roll out of pay-by-use charging for refuse collections contributed to a surge in materials recovery in recent years. Unfortunately, materials reprocessing capacity in Ireland did not keep pace resulting in the export of the recycled materials recovered and Ireland’s increasing reliance on overseas recycling infrastructure.

In April 2006 the Government published the National Strategy on Biodegradable Waste which set targets for the progressive diversion of biodegradable municipal waste from landfill⁵⁴. These obligations have enabled the further development of the biological treatment industry, in respect of producing high quality compost/ digestate products which could potentially add value in many market applications.

In response to the above developments, the Government's Market Development Group brought forward the Market Development Programme for Waste Resources 2007 – 2011, aiming to promote more recycling in Ireland of the materials recovered. Implementation of the Market Development Programme, which began in October 2008, is managed by rx3⁵⁵ and overseen by the Department of the Environment, Community and Local Government. While the Programme's primary focus is on paper, plastics and organics, there is scope for initiatives in respect of recycled materials derived from other waste streams. Even a small shift in how materials are purchased can have a big influence on the supply chain. It is envisaged that the on-going implementation of the Market Development Programme will play a key role, where appropriate, in the monitoring and evaluation of relevant actions specified in this Action Plan. This will ensure that green public procurement underpins this process of change in how we deal with our waste.

The Green Hospitality Award

The Green Hospitality Award⁵⁶ has been developed by the National Waste Prevention Programme as a means of identifying hospitality businesses which have reduced their environmental impact through accredited inspections based on an environmental management systems approach. At present there are 124 Green Hospitality Award holders in Ireland. If the public sector were to consistently ask for this accreditation when procuring hospitality and related services, it would dramatically increase the number of those seeking this award, leading to increased environmental benefits.

Chapter 4: Process



National objectives and further development of GPP in Ireland

Green Tenders commits the public sector to playing an exemplary sustainability role through its procurement activities. It complements and enhances existing legislation and public policy goals in the fields of procurement, environmental protection, social policy and fostering innovation. As such, its objectives are to:

- Ensure that goods and services procured continue to be fit for purpose, cost-effective and meet the needs and expectations of society
- Procure goods that are durable, repairable, have reduced hazardous substances and are re-usable⁵⁷
- Reduce Ireland’s dependence on energy derived from fossil fuels
- Reduce energy consumption and associated costs⁵⁸
- Reduce CO₂ and other greenhouse gas and ozone-depleting substance emissions⁵⁹
- Promote health
- Enhance competitiveness and encourage innovation
- Protect and enhance biodiversity
- Support high water quality⁶⁰
- Support good soil quality
- Transform waste streams into waste resources⁶¹

For the purposes of Green Tenders, the public sector comprises bodies covered by the EU directives on public procurement, 2004/17/EC and 2004/18/EC.

The public sector’s total purchasing power is approximately €15 billion per year. The table below⁶² summarises the estimated annual public procurement expenditure for 2010. This sum consisted of €6 billion for capital works⁶³ and €9 billion for goods and services. Green Tenders seeks, in the coming years, to leverage this purchasing power in favour of the provision of environmentally-friendly goods, services and works.

Table 1: Estimated annual public procurement expenditure by sector 2010

Expenditure area – Supplies and Services	Value € billion
Health sector ⁶⁴	4.6
Central government sector ⁶⁵	1.95
Local government sector	1.6
Education sector	0.9
Total Supplies and Services	9.05
Capital works	6.0
Total public procurement	15.05

Costs

Public money must be well-spent and not wasted. A common perception is that greener products and services cost more, conflicting with the core concern to avoid wastage in the use of public funds. Even when the GPP alternative could well turn out to be better value for money in the long run, budgetary constraints in the shorter term can still make public procurers reluctant to opt for more sustainable solutions. However, a European Commission⁶⁶ study on this question – carried out in 2007 in four national markets, the Czech Republic, Germany, Sweden and Spain – found that this was frequently not the case and that cost savings were delivered. Commonly-procured items that were examined in the study included office machinery and computers; cleaning equipment; electricity; vehicles; and paper. There is evidence from the experience in Ireland – for example, the procurement of paper, discussed below – which bears out the EU study’s findings. In other sectors – for example, the transport sector – the most environmentally friendly option can still cost significantly more upfront. Nonetheless, the Commission’s study demonstrates the potential of GPP to deliver cost savings, especially through economies of scale.

Risk

Staff with public procurement responsibilities should be mindful of the environment in their risk management practices. Environmental risk can impact on the cost, timely delivery and quality of the goods, services or works to be procured. These impacts can arise from a number of factors, including supplier failure and incurring increased environmental taxation.

Environmental risk can also impact on a public body's reputation. Being held to be non-compliant with the environmental law is an unacceptable risk for any public body. Reputational risks arise from any risk to the environment from the organisation and its supply chain, such as pollution potential, resource depletion, emissions to air, soil and water, waste arisings, biodiversity impacts, and the quality of the working environment. Causing greater health impacts (e.g. respiratory disorders linked to air quality) is also an environmental risk to a public body's reputation.

Risk assessment is currently an important component of procurement training. The report⁶⁷ of the Procurement Innovation Group of the Department of Jobs, Enterprise and Innovation recommended that to avoid dependency on a sole supplier, public procurers could split contracts into lots (this could also facilitate greater SME access to the market). In several existing corporate procurement plans of local authorities and other public bodies risk analysis of procurement expenditure already takes place, in terms of value, strategic importance, or the availability of critical supplies. The framework thus exists for taking greater account of significant environmental risk. This would include risk of breaches of planning or environmental licensing requirements or other relevant legislation (e.g. volatile organic compounds, solvents, WEEE, batteries, RoHS, end-of-life vehicles, ODS, F-gas).

Risks should therefore be assessed in the light of government policy objectives and commitments; organisational policy statements; potential supply constraints; influence on working conditions; scope to demand more from the market; and areas of perceived high impact. Effective risk assessment provides public sector organisations with opportunities to promote compliance for the greater environmental good, as well as achieving financial savings in a number of ways.

Integrating GPP into the procurement process

All public procurement must satisfy a number of objectives. An overarching objective must be the achievement of value for money. Studies have shown that green and sustainable procurement need not necessarily be a more expensive option particularly when the cost of a product is considered over its estimated economically useful life. In implementing GPP, it is crucial that an approach is adopted that will further Government policy

while also ensuring a competitive market place where suppliers can compete aggressively resulting in the desired pricing outcome. In areas where the market is not yet sufficiently competitive, a phased approach may be necessary to encourage the emergence of new suppliers with innovative solutions.

It is important that companies that wish to tender to supply products and services to the public sector are aware of where their green credentials can give them an advantage during the competitive process. Such green credentials must be non-discriminatory, i.e. the possibility of achieving them must be open to all potential suppliers.

Enterprise Ireland's approach⁶⁸ is to increase supplier (particularly SME) awareness of GPP by developing and encouraging relationships between contracting authorities and local suppliers, with a view to developing network clusters and enhancing capability building within the supplier network (including pre and post procurement opportunities). Enterprise Ireland also encourages companies to become more sustainable and offer financial supports to assist them in becoming leaner and greener operations. In general, companies which improve their green credentials will be better positioned to avail of GPP opportunities both in Ireland and in other jurisdictions.

The following type of contracts can improve the effectiveness of GPP:

- **Joint Procurement** – Joint Procurement by a number of public authorities can reduce the price through economies of scale and can reduce administrative costs for managing contracts. It can also enable pooling of skills and expertise and can help to launch environmentally innovative solutions by increasing market pressure on suppliers to provide greener solutions.
- **Green Public Private Partnership** – Public Private Partnerships provide a particularly important opportunity for integrating environmental considerations because of their long term nature. One single contract replaces separate contracts for construction, operation, maintenance and facilities management and makes the private partner a stakeholder in the performance of the asset.
- **Energy Performance Contracting (EPC)** – EPC is an innovative contractual arrangement which helps the purchaser to implement measures while minimising the upfront capital investment required. The

Performance Contract is typically between an Energy Service Company (ESCO) and the energy-consuming user (e.g. a building owner or a facility operator), and the investment is repaid out of the reduced costs of energy saved.

In most tendering processes, a public contracting authority must define the following:

- the subject matter, i.e. what product, services or works are to be procured
- the technical specifications (these are typically minimum specifications that all bids have to comply with)
- the selection criteria (by which the eligible bidders will be selected)
- the award criteria (by which the winning bid will be chosen)
- the contract performance clauses

The most direct, clear and transparent way to practice GPP is by specifying it and in the definition of the subject matter. However, GPP elements (provided these are in accordance with the law and with the principles of the Internal Market) may be specified for other criteria as well. For example, where relevant to the subject matter of the contract, stipulations as to the environmental performance of the bidders themselves may be among the selection criteria. With regard to the product, service or works being procured, GPP criteria may be among the minimum technical specifications. They may also be formulated as award criteria, without being mandatory.

With regard to the Award Criteria, contracts may be awarded on the basis of either (i) the lowest price or (ii) the most economically advantageous tender (MEAT). Where contracts are to be awarded on the latter basis, environmental criteria included in the Award Criteria must be:

- Clearly mentioned in the tender
- Related to the subject matter
- Objectively quantifiable and verifiable
- Weighted (e.g. stating what %-age of the overall marks are given to a particular award criterion)

Requirements on products/ services/ works purchased

- Subject matter
- Technical specifications
- Award criteria
- Contract performance clauses

Requirements on bidders

- Selection criteria

When a tender price and other relevant information become available, the case for proceeding with the proposal should be again reviewed. If tenders exceed the approved budget, the project should be re-examined and reductions achieved without lowering the quality standard of the project below acceptable levels in order to bring the project within the approved limit.

Environmental Management Systems

As outlined above, environmental management systems are an excellent way to demonstrate effective commitment to improving an organisation’s environmental performance. The public sector body which has an environmental management system clearly signals to its suppliers, its other stakeholders and the general public a dynamic process of change and an openness to more innovative solutions. South Tipperary County Council has achieved EMAS certification in respect of several of its sites, in order to “*evaluate, improve and report our environmental impact*”.⁶⁹ The Environment Section of Waterford County Council has also achieved EMAS certification, and it is intended to extend this environmental management system to the activities of the entire Council⁷⁰.

For the supplier, an environmental management system can be used to demonstrate its own green credentials and to prove its capacity to perform the environmental aspects of a contract. Public procurement officers should be aware that it may be more difficult for some organisations – especially SMEs – to implement an environmental management system. Diverting time and money from existing business needs can be perceived as a major disincentive, especially for small organisations. Therefore a phased approach to introducing an environmental management system may be necessary. ISO 14005:2010 provides guidance for all organisations, but particularly SMEs, on the phased development, implementation, maintenance and improvement of an environmental

management system. This phased approach should be encouraged and used as a starting point for smaller companies. This approach is facilitated by both the EPA-supported Green Hospitality Award (see below) and Ecocert schemes as well as the Enterprise Ireland GreenTech Support.

Contracting authorities should be aware that any requirements they impose on suppliers in tenders must be linked to the purchased product/service itself. An environmental management system cannot be used as a selection criterion for suppliers by a contracting authority when procuring a product. Procurers should however recognise the environmental benefits associated with having an environmental management system and look favourably on suppliers who have integrated environmental management techniques into their operations where possible. In this way GPP can be used as a stimulus for improved environmental performance.

Chapter 5: GPP Targets for Ireland



Leading by example

Public bodies should play an exemplary GPP role. To this end, they must first ensure their own procurement processes are in compliance with national environmental laws and guidelines. These guidelines help public bodies to secure significant economic, energy and environmental benefits in the medium and long term through the procurement of products, services and capital projects.

In addition to fulfilling an exemplary GPP role themselves, public bodies should encourage and, where appropriate, oblige their supply chain partners to do so. In terms of energy efficiency, for example, they can do this by raising awareness of energy efficient procurement among all of their suppliers and by encouraging, facilitating, monitoring and, where appropriate, compelling suppliers to use the energy efficient procurement framework (outlined below).

Green Tenders adopts the indicative EU political target of 50% of GPP, where GPP means incorporating green criteria into the procurement contract. This target will apply in respect of both the number and the value of public procurement contracts concluded. The focus initially will be on the number, ensuring that as soon as possible, at least half of such contracts will include core GPP criteria – i.e., criteria that are suitable for use by any contracting authority, and address the key environmental impacts.

Simultaneously, monitoring of these contracts will also take account of their monetary value, aspiring to meet and exceed 50% of expenditure on public procurement. In the first instance, targets will apply to eight priority product groups.

Eight priority product/service groups

Green Tenders nominates eight product/service groups as priority groups for GPP. These are:

1. Construction
2. Energy
3. Transport
4. Food and catering services
5. Cleaning products and services
6. Paper
7. Uniforms and other textiles
8. ICT

In line with EU practice⁷¹, these groups have been chosen on the basis of the following criteria: quantum of public expenditure; scope for environmental improvement; potential impact on suppliers; potential for setting an example to private or corporate consumers; political sensitivity; existence of relevant and easy-to-use criteria; market availability and economic efficiency.

Chapter 6: Construction



Procurement policy in the construction sector necessarily takes a long-term view, as our building stock and other physical infrastructure will last many years. In that timeframe, it may be required to adapt to evolving needs and patterns of use, as well as to more frequent and more extreme weather events and other consequences of climate change. This presents both challenges and opportunities both for public procurers and all other stakeholders in the construction sector.

This chapter sets out a long term vision for GPP in the construction sector and sets out a series of actions to achieve this ambition. Its structure and content recognises the diversity of public sector organisations that will use this document and also anticipates the guidance document for Green Public Procurement in the Construction Sector, being prepared by the OPW Architectural Services. The framework provided in this document for buildings is for public Buildings other than Dwellings. Guidance on the green procurement of dwellings is provided by the Housing/Architectural Section of the Department of Environment, Community and Local Government in the following documents: Parts A to M of the Building Regulations – Dwellings, Quality Housing for Sustainable Communities, Social Housing Retrofit Programme and the National Retrofit Code of Practice (to be published).

There are also examples of the role already being played by public procurement, as an enabler of world-class eco-innovation by the construction industry. This is exemplified by the many showcase public buildings contracted for in recent years. Further actions will be recommended to consolidate this progress.

Context

Sustainable construction considers social, economic and environmental aspects of construction. The sustainability of construction projects is closely connected with their location, and with the travel patterns and options they engender, facilitate or impose. Consequently, the design of construction projects should always take due account of the National Spatial Strategy and the **Smarter Travel: A Sustainable Transport Future**⁷² policy document.

At both national and EU level, there is a considerable body of guidance and legislation for the sustainable development of the construction sector. This includes the **Europe 2020 Strategy**, the **Energy Performance in Buildings Directive**, the **EU Sustainable Consumption and Production** and

Sustainable Industrial Policy Action Plan and the development of standards by CEN (European Committee for Standardisation) Technical Committee 350 for the Sustainability of Construction Works. Of particular influence at national level are the **National Energy Efficiency Action Plan**, the **National Climate Change Strategy** and legislation governing physical planning, building control, habitats protection, air quality and water quality.

A general policy framework is also provided within the **Government Policy on Architecture 2009-2015**⁷³ **Towards a Sustainable Future – Delivering Quality within the Built Environment**. Developing policies, research and guidance in this regard are currently being advanced within this over-arching framework. The Government Policy on Architecture also states that “the Government must present itself as an exemplary client committed to quality in every aspect of building procurement and property development, including the conservation and maintenance of its building stock, the avoidance of demolition waste and the consolidation of existing urban centres can make a significant contribution to sustainable development. Consequently, the planning of construction projects should always take due account of this policy document.

The environmental impacts of the construction process are a rapidly evolving area of research, and as yet the relevant data sets and methodologies for some areas are incomplete. There is a need to initiate and resource considerable further research in this area.

Framework

Resource efficiency in the construction sector begins with the design phase. These guidelines endorse the approach of the Office of Public Works in highlighting the concept of sustainable design. If a construction project is designed from the outset with sustainability in mind, it can achieve an optimal balance of cost, environmental and societal benefits while fulfilling the brief and function of the intended development. In accordance with both sustainable development principles and the tenets of cost-benefit analysis, appraisal begins with looking at the objective of the project. The reason why it is thought that public resources should be committed should be set out, having regard to what the private sector is doing or might be willing to do, independently or with State participation or encouragement. The appraisal should identify all realistic options including the option of doing nothing, and quantify (where possible) the key elements of each option.

From the outset, the project should be considered in terms of its economically-useful life. The initial purchase price should normally account for the economic and environmental costs up to the point of purchase (e.g. costs of extraction of raw materials, costs of manufacture/assembly or costs of delivery). In accordance with the Department of Finance's **Guidelines for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector**⁷⁴, the ongoing cost of operation etc. over the economically useful life of the construction project should be included in its appraisal. The Department of Finance's **Working Rules for Cost Benefit Analysis**⁷⁵ state that residual values and/ or decommissioning costs at the end of a project's useful life should also be included in the analysis. In order to decide the most economically advantageous option, therefore, it is essential to take such costs into account as far as practicable.

As referenced above, the **Government Policy on Architecture 2009-2015** (statutory responsibility for which has now been transferred to the Department of Arts, Heritage and the Gaeltacht) provides the appropriate framework for architectural policy over the next five years. The policy places an emphasis on sustainable development of the environment and urban design, encourages and supports high quality modern architecture, and incorporates architectural heritage in a holistic, integrated manner. The policy complements and supports the Government's wider economic strategy in areas such as research, green enterprise and the development of efficient and sustainable technologies for the built environment.

From the overall 45 actions set out, an initial 20 priority actions have been identified in respect of which implementation is to begin over the first two years. These deal with specific areas such as built environment research, public awareness, policy development in urban design and sustainable development.

Furthermore, public procurers in the construction sector should take into account the following key objectives (which will inform the Office of Public Works in developing GPP guidelines for the construction sector) to:

- produce guidance and specifications based on clear and verifiable environmental criteria that are compatible with relevant EU and national legislation.

- develop a framework that can be updated continuously to reflect developing knowledge, expertise and data
- set out short, medium and long term goals in accordance with the availability of concise evaluation criteria, the need to prioritise the most significant impacts, and the constraints on the public purse
- promote an exemplary standard amongst publicly owned, managed and leased buildings and infrastructure
- support the development of green industry, goods and services
- support and develop research into the environmental impacts of construction projects and evaluation and development of assessment criteria
- support the reduction of greenhouse gas emissions

Key Aspects

The following sections outline six key aspects through which GPP can be embedded in the construction sector. Guidance on these six aspects and the development of supporting material databases will be further developed in the forthcoming OPW guidance for GPP in the construction sector.

Design

Effective energy efficient design strategies should be incorporated in all public sector projects at the early design stage, so that energy efficiency and other environmental measures are incorporated into the project from inception. Passive design strategies should be incorporated and prioritised in all new build projects and, where practical, in existing building projects. This will support the realisation of specific targets, e.g. achieving the desired Building Energy Rating (B.E.R.) in the most efficient manner.

The procurement procedures for consultants, including architectural and engineering design services, should include both qualitative and quantitative assessment criteria and demonstration of consultants' environmental design experience and/or qualifications. The assessment criteria should be proportionate to the nature, size and complexity of the project. All buildings shall be designed and constructed to comply with all Parts of the Building Regulations.

Energy

Energy efficiency should be integrated into public sector construction projects in accordance with the three-part energy efficiency procurement framework described in the next chapter. It should be evaluated from both supply and demand side perspectives. The aim should be to reduce primary energy demand, maximise delivered energy efficiency and secure energy supply in the least carbon intensive manner practicable.

The Building Energy Rating (B.E.R.) methodology should be used to assess new buildings. A B.E.R., which is effectively an energy label, is required at the point of sale or rental of a building. In addition, for public buildings, a further energy rating is documented in an annual Display Energy Certificate (D.E.C.) which shows the actual energy consumed in the building compared to a benchmark on a scale from A1 to G. The D.E.C. is intended to encourage public authorities to adopt environmentally responsible and efficient use of energy in buildings. They will be used to monitor on-going energy use and assess the effect of renovation works and energy management initiatives.

Since January 2009, public bodies occupying buildings over 1,000 m² are obliged to exhibit a D.E.C., in a prominent place, clearly visible to the public⁷⁶. Regulation 15(1) of the European Communities (Energy End-use Efficiency and Energy Services) Regulations 2009 (S.I. No. 542/2009) requires public bodies to only purchase or lease buildings with a B.E.R. of B3 or higher (from 1 January 2012) and A3 or higher (from 1 January 2015) unless specified exemptions are invoked. In addition, the European Communities (Renewable Energy) Regulations 2011⁷⁷ require public bodies to fulfil an exemplary role (in the context of Directive 2009/28/EC on the promotion of the use of energy from renewable sources) when constructing or renovating public buildings after December 31st, 2011.

Refurbishment

Reusing existing buildings should be given priority over new-build construction. Available best practice should be utilised in respect of refurbishment projects. When retrofitting for energy efficiency, public bodies should consider using Energy Performance Contracting or similar models, if available, which may also be accompanied by third party finance to avoid up-front capital costs and any negative cash flow burden on the public body. The Energy Efficiency in Traditional Buildings Advice Series publication 2010⁷⁸ advises on best practice in respect of traditionally built buildings, and the ways in which historic buildings can

be sympathetically altered to improve their energy efficiency⁷⁹. In addition, the OPW has developed best practice in relation to: treatment of historic buildings, retrofitting of services, and recommended strategic approaches. The traditionally constructed solid masonry walled buildings which comprise a majority of the country's historic building stock require specialist attention and advice to avoid damage in the attainment of particular Building Energy Ratings not only to their architectural and historical interest, but also to their fabric. However, their energy performance can be enhanced in many simple, cost effective ways and the upgrading and reuse of such buildings by public bodies should be considered in tandem with new construction.

Materials

All materials used in construction should be assessed for environmental impacts over the appropriate appraisal period for the project. Pending further research, including at EU level, and stakeholder engagement on methodologies for doing so, public procurers should consider the manufacture, construction, maintenance and disposal impacts of the most commonly used materials, but should be satisfied that appropriate methodologies are used. These include embodied energy (and associated CO₂ and other pollutants), resource use, responsible sourcing, construction wastage, durability, recyclability and disposal. Public procurers should ensure that the environmental advantages claimed by material suppliers can be verified.

Ecology and Site Utilities

Aspects of ecology which are particularly relevant to the construction sector include land use, habitat protection, air quality and groundwater, including flood attenuation. Site utilities include transport, water and waste. Steps should be taken to protect or enhance site utilities, from site selection stage through to developing and maintaining landscaping design for the site. Guidance will be developed on the environmental criteria for the appropriate assessment and management of sites and to ensure efficient integration with utilities to optimise use.

Specification

Specific examples should be used of where the above ambitions have been successfully incorporated into a project's tender documentation, in a manner that is compatible with Public Works Contracts and general public procurement procedures.

Wood

Wood is a renewable, versatile and sustainable building material. Provided it is sourced from sustainably managed forests it has a huge contribution to make across a range of areas. At a global level, efforts to address climate change increasingly recognise the value of forests as carbon sinks, the value of forest-based biodiversity, and the need to return the proper value of the forest to people who live in forest regions.

Illegal logging and deforestation

Illegal logging and unsustainable timber harvesting is a major global problem. Forests are home to some of the world's poorest people and most sensitive ecosystems. It is estimated that deforestation accounts for nearly 20% of greenhouse gas emissions⁸⁰. The loss of forest cover arising from illegally or unsustainably harvested wood has also caused a very significant loss of carbon dioxide sequestration capacity – a factor that is now recognised as a significant contributing cause of climate change.

The Copenhagen Climate Change summit in December 2009 agreed to establish a so-called REDD+ (Reducing Emissions from Deforestation and Forest Degradation) mechanism⁸¹, which puts a value on living trees and provides finance to developing countries to reduce deforestation. While this will help to reduce the supply of unsustainable timber, there are also demand side issues that can be addressed by public procurement policies. Public procurers in Ireland should therefore support all efforts to eliminate the demand for timber and timber products from unsustainable sources, including those used by the construction sector.

The FLEGT Action Plan

Ireland is party to the EU's Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan⁸², which marks a new phase in concerted EU efforts to counteract illegal logging, and thereby to improve sustainable forest management in developing countries. The FLEGT process sets out the elements that should be embraced in order for wood to be considered as coming from a "legal" source. Accordingly, the FLEGT Action Plan defines a timber licensing system to guarantee the legality of imported wood products. The lynchpins of this licensing system are the Voluntary Partnership Agreements, signed between third country timber-producing nations and the EU.

The FLEGT licensing system will be implemented and administered in Ireland by the Forest Service (Department of Agriculture, Marine and Food).

Due Diligence

To complement and strengthen the FLEGT programme and to minimise the risk that any timber sold in the EU came from illegal sources, further EU legislation⁸³ is to be introduced that will require any operator placing timber or timber products on the EU market, for the first time, to employ a system of "due diligence" that will ensure the timber or timber products they place on the market were harvested from a legally logged source. Each EU Member State, including Ireland, will identify a competent authority to oversee the implementation of due diligence in their territory.

Due diligence will require operators to produce:

- Precise details on the products being sold, such as specific trade and or scientific names etc.
- Evidence that identifies the country where the timber was harvested, that it is from a legal source and is compliant with relevant legislation in the country of harvest.
- A risk management system (applying to all timber and timber products) that will identify and help target timber or timber products that carry a higher risk of non compliance with relevant legislation in the country of harvest
- Provision for audit to ensure that the system functions correctly

Indigenously produced timber will also be subject to due diligence. Accordingly, when placing timber or timber products on the market for the first time, Irish operators will have to meet all the requirements of due diligence including the provision of evidence that demonstrates that the timber or timber product complies with existing domestic legislation related to forest management and harvesting.

Sustainable Forest Management and voluntary forest certification

It is estimated that over 80% of timber used in Ireland is sourced from Irish or European forests. The conditions associated with the grant-aiding of forestry and with the issuing of felling licences have ensured that Irish forests are sustainably managed. The Forest Service is committed to ensuring that all wood produced in Ireland, including wood fuel, accords with the principles laid down in the National Forest Standard.

While national and EU-based systems are designed to ensure that wood placed on the market is from sustainably managed forests, voluntary certification has a role to play in public procurement policy. Both the Forest Stewardship Council (FSC)⁸⁴ and the Programme for the Endorsement of Forest Certification (PEFC)⁸⁵ provide voluntary certification of forest management and associated wood supply chains in Ireland. Coillte forests have been certified by the FSC since 2001. The PEFC was incorporated in Ireland in 2009. Both organisations are in the final stages of completing national certification standards. In accordance with the EU Treaty principles of fair and open competition, other means of demonstrating the required standard of sustainable forestry are acceptable provided that verifiable data is available.

In time, it will be feasible for public procurers to specify requirements that would help to ensure that any wood used in construction projects comes from legal and sustainable sources. Tender documentation could specify certificates for chain of custody for the wood – FSC, PEFC or any other authoritative proof of sustainability.

Example: Sustainable timber requirements of the OPW

The Office of Public Works requires wood that is used for its construction projects to be legal and sustainable. Contractors must avoid sourcing illegally logged timber, in accordance with the EU illegal logging action plan known as FLEGT. Endangered species designated by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) should not be used.

Contractors are required to demonstrate their compliance with the OPW's timber sustainability requirements, by means of credible evidence of verification that the timber used is both legal and sustainable. The OPW accepts a number of existing commercial certification systems, namely CSA, FSC, PEFC and SFI. However, the OPW allows for the submission of other sources and forms of proof and verification that timber is legal and sustainable. Such sources or forms of verification should take the form of "verification of source" under the terms of the EU public procurement policies; an appropriate chain of custody standard; the requirements for the protection of endangered species; or independent assurances of sustainable forestry practices.

Example – Procurement of wooden furniture by the Office of Public Works

The Furniture Division of the Office of Public Works concluded approximately 200 contracts in the years 2007-2010, with a value of up to €10 million a year. Tendering processes include the possibility of additional marks for contractors who can demonstrate that their goods and processes are environmentally preferable. Marketplace and supplier engagement on these issues has led to continuous enhancement of specifications, based on best manufacturing practice. Furniture Division has experienced no increase in costs as a result of these specifications. Suppliers have also gained through reduced packaging and more efficient processes, as well as enhancing the environmental profile of their products and activities.

Furniture Division require contractors to demonstrate their compliance with the OPW's stipulations that wood used be legal and sustainable. Solid wood furniture shall not be treated with impregnating toxic substances or pesticides. Non-renewable materials, including metals, shall be kept to a minimum. Materials used in the manufacture must not contain substances which are carcinogenic, toxic, allergenic or reprotoxic. Contractors must employ good environmental practice on site vis-à-vis waste reduction, waste recovery, minimisation of packaging, recoverable packaging materials, control of environmental emissions, product design, and the efficient use of materials and transport. Contractors must also take adequate measures to limit occupational exposures.

Tenders for furniture include the following specifications:

Baseboard

Chipboard used must be Furniture E1 Grade. Glues and resins used must give rise to low formaldehyde emissions only, and must be consistent with emission class E1, as per European Norm IE EN 312:2003 or similar standard.

Finishes

Veneers must have been manufactured without the use of biocides or emissions of biocides to waters. All panels are to be balanced with approved backing veneer. All edge lippings must be 2.5mm minimum solid wood lippings

Lacquers and Varnishes

Acid-curing lacquers are to be avoided, unless they are low VOC and low formaldehyde emitting. UV curing lacquers and water-based lacquers are to be used where possible. All finishes must be in accordance with FIRA Standard 6250, or equivalent.

Adhesives

Glues must have VOC content of 10% or less. Glues must not give rise to formaldehyde emissions.

Key Actions

The following is a summary of actions proposed for the green procurement of construction products and services.

1. Produce guidelines for public sector construction procurement, including assessment criteria. While taking into account cost efficiency, develop initial evaluation criteria and relative weightings under the six main headings of Design, Ecology and Site Utilities; Energy; Materials; Refurbishment; and Specification.
2. Integrate energy efficiency into construction projects in accordance with the three-part energy efficient procurement programme (described in the chapter on Energy).
3. Develop a target B.E.R. for all new construction projects (c.f. Action 9 of the National Energy Efficiency Action Plan).
4. Public bodies will only purchase (or lease) buildings with a B.E.R. of B3 or higher with effect from 1 January 2012 and A3 or higher from 1 January 2015 in compliance with the European Communities (Energy End-use Efficiency and Energy Services) Regulations 2009 (S.I. No. 542 of 2009).
5. Use innovative procurement initiatives such as Energy Service Company contracting to facilitate the aim of all public sector buildings over 1,000 square metres having their D.E.C. improved to D1 or higher by 2020 as envisaged in the National Energy Efficiency Action Plan 2009-2020.
6. Implement the FLEGT Action Plan in Ireland (by 2011).
7. Establish a system of Due Diligence for operators placing timber products on the market for the first time (commencing 2013).
8. By 2017, it will be mandatory that construction timber will be procured only from verified legally logged sources and from independently verified sustainable sources.

9. Conduct research projects to broaden the criteria for evaluation in the GPP Guidance Document.
10. Ensure continued updating of the guidance document for GPP in the construction sector, to reflect most recent data, research and standards.
11. Develop database of relevant properties and evaluation criteria for the most common building materials and products.
12. Expand database and evaluation criteria to cover all building materials and products.
13. Maintain the guidance document to include new materials, standards and evaluation methodologies.
14. Explore the feasibility of developing a national methodology for life cycle analysis and life cycle costing for construction projects.
15. Research long term ambitions for GPP for construction by means of case study projects at design, occupancy and refurbishment stages.

Chapter 7: Energy



Exemplary role of the Public Sector

Green Tenders provides a framework that will allow the Irish public sector to play a consistent and exemplary GPP role across its entire procurement profile. This can be an important element in driving the energy efficiency agenda in the wider context of climate change and energy policy. In terms of energy efficiency such an exemplary procurement role is legally mandated by the above-cited European Communities (Energy End-use Efficiency and Energy Services) Regulations 2009 (S.1. No. 542/2009) (c.f. Section 11). Public bodies are accordingly required to purchase products that are leaders in their class in respect of energy efficiency.

With regard to renewable energy, under the European Communities Renewable Energy) Regulations 2011 public bodies are required to fulfil an exemplary role (in the context of Directive 2009/28/EC on the promotion of the use of energy from renewable sources) when constructing or renovating public buildings after December 31st, 2011.

Key objectives of GPP are to improve energy efficiency and to reduce energy consumption and associated costs. Public procurement ranges from the purchase of everyday supplies or services to formal tendering and placing of contracts for large infrastructural projects. As such, the scope for energy-efficiency in public procurement is vast. It ranges from the routine (e.g. purchase of an energy efficient light fitting, tendering an electricity supply contract) to the complex (e.g. outsourcing of energy services, deep retrofit via energy performance contracting, procurement of a light rail project through a 25-year public-private partnership). More specifically, the energy dimension to green procurement has a number of strands, including the procurement of:

- products having superior energy efficiency under normal conditions of use
- supplies of energy in the form of fuel or power
- energy efficiency and/or renewable energy services
- Capital projects

This chapter outlines how procurement in the complex and varied energy sector can boost the objectives of Green Tenders. It will outline examples of the public sector's exemplary role in action and recommend further actions to consolidate and build on the significant progress achieved to date.

Energy-efficient Procurement is Good Procurement

Irrespective of any legal imperative to act, energy-efficient procurement simply makes good sense. A compelling reason for improving energy performance by public bodies is the potential for achieving clear environmental benefits, e.g. lower CO₂ emissions, less pollution, and use of recovered waste resources. Significant cost savings can also be made with many organisations being in a position to achieve 20% savings in energy use through proven management and technology solutions.

Prior to the consideration of options for renewable energy supply, it is always advisable to improve energy efficiency. The Government is committed to energy efficiency improvements of the order of 20% by 2020, with an even more challenging target of 33% set for the public sector⁸⁶. No matter what the source of the energy supply, using less of it by being more efficient makes good business sense and is clearly more sustainable.

The “economically-useful life” perspective needs to be considered in the evaluation of individual or comparative options for investing in energy and/or environmental performance upgrading. Such an evaluation should always be consistent with the appropriate Department of Finance guidelines. As well as the initial purchase price, this would entail considering the energy consumption costs, other usage costs (e.g. water, consumables), maintenance costs and any disposal costs (or resale value). Although some energy efficient options have higher purchase costs than less energy efficient alternatives, the energy savings made during the economically useful life of the energy efficient option often means that it is the most economically-advantageous alternative.

Unless energy efficiency is explicitly referenced as a requirement it may be neglected – leading to higher costs-in-use and other additional life cycle costs. Unambiguous requirements to incorporate best practices oblige suppliers to address energy efficiency from the outset.

Framework

Energy efficiency should be fully integrated into all public procurement processes using the three-part framework described here. The framework helps public bodies undertake energy-efficient procurement by improving what they procure and how they procure. Each part of the

framework addresses one of the following three broad categories of purchases:

- Energy-using products, e.g. purchasing or leasing equipment, vehicles or buildings as new or as replacement for existing assets;
- Energy services – procuring a service directly related to the use of energy within the organisation, e.g. design and implementation of energy-efficiency retrofit works or an onsite power generation solution, provision of energy supplies in the form of fuel or power;
- Capital projects, e.g. constructing a new building, wastewater plant, hospital or light rail system.

The use of model contracts can facilitate the integration of energy efficiency into the public procurement of energy, energy services and capital projects. These model contracts provide a framework for the implementation of innovative approaches to energy efficient procurement. Where appropriate, therefore, public bodies should procure products, services and capital works using model forms of contracts, such as those developed by the National Procurement Service, the Sustainable Energy Authority of Ireland or the Department of Education and Skills.

In accordance with their requirement to play an exemplary role, public bodies should encourage and promote good, energy efficient procurement practices throughout their supply chains. They can do this by raising awareness of energy efficient procurement among all of their suppliers and by encouraging, facilitating, monitoring and, where appropriate, compelling suppliers to also use suitable framework arrangements for their own energy procurement.

In respect of working within such a framework, the following steps should always be borne in mind by public procurers seeking to maximise their energy efficiency:

- Public bodies should clearly and explicitly specify the requirement to use best practices regarding energy efficiency in all relevant procurement and contractual documentation.
- Public procurement should facilitate the adoption of low carbon sources to exploit renewable energy opportunities.
- In addition to fulfilling all of these criteria themselves, public bodies should encourage and, where appropriate, oblige their supply chain partners to do so.

- Public bodies should follow all relevant national guidelines on procuring energy-using products, energy services and capital projects, including the “Guidelines for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector” and the “Working Rules for Cost Benefit Analysis”. The application of these guidelines helps public bodies to secure significant economic, energy and environmental savings, especially over the medium and longer term.

Energy-Using Products

The European Union (Energy Efficient Public Procurement) Regulations 2011 oblige public bodies to only purchase equipment and electric vehicles from the Triple E register. This online register⁸⁷ is a benchmark list of around 7,000 products that meet a set of stringent energy efficiency criteria. They are generally of a “best in class” energy efficiency standard. Typically, they are of higher quality, have longer operational lifetimes, and can perform 10%-20% better from an energy perspective when compared to standard alternatives⁸⁸. Procuring against the register provides organisations with the assurance that they are purchasing a product of very high energy efficiency, with consequent environmental savings and enhanced value for money. As an example, replacing a conventional motor with a high-efficiency alternative from the register can deliver a payback in as little as one year.

As outlined in the previous chapter on construction, there are also a number of requirements with regard to energy use in public buildings, as measured by the Building Energy Rating (B.E.R.) and, for buildings over 1,000m², by the Display Energy Certificate (D.E.C.).

Example: Tralee Town Council LED lighting

In 2008, Tralee Town Council replaced inefficient sodium street lamps and metal halide floodlights in the Town Square with more efficient LED streetlights and floodlights. The project delivered energy savings of 68%, as well as reducing maintenance intervals and providing comparable lighting levels and clearer and more even lighting coverage. In addition, lighting levels from each unit can now be customised for better operational flexibility.

The feedback from the business community in the vicinity of the Town Square was extremely positive, as is exemplified by the following remarks:

“The new lights in the Square are fantastic; there is no comparison between the lights that were there before and the clear bright light that is there now... I can't praise the new lights enough.”

“The new lights improve the security in the Square and the whole area appears clearer and better-lit now.”

In view of the above, public procurers should adhere to the following:

- For the relevant product categories, public bodies should only purchase or lease equipment or vehicles that are classified as Triple E by SEAI or meet the energy efficiency criteria published by SEAI
- A public body should only purchase or lease a building that has a B.E.R. equal to or better than B3.

Energy Services

The National Procurement Service provides a central procurement service for Government Departments, Local Authorities and agencies. It regularly tenders for a variety of goods, supplies and services including electricity, natural gas, petroleum products and biofuels⁸⁹. All transactions under these contracts are managed directly between the energy users (i.e. the public bodies) and the suppliers.

The National Procurement Service currently has in place a framework agreement to facilitate the purchase of electricity for the public service. The overall, potential value of the electricity framework (over its four-year period) is €920 million. The framework specifies the proportion of electricity required to be generated from renewable sources. These proportions follow the national policy

requirements which stipulate that the annual target to be achieved in 2011 is 24.6% eventually rising to 40% by 2020.

Another important development in the procurement of energy services is energy performance contracting (EPC). This is an innovative contract which helps the purchaser to implement energy-saving measures while minimising the up-front capital investment required. The performance contract is typically between an energy service company (ESCO) and the owner of a building or facility, and the investment is repaid out of the reduced costs of energy saved.

Example: Stewarts Hospital

In 2009, Stewarts Hospital in Dublin implemented an innovative procurement model for the provision of energy efficient upgrades and supply side energy projects. The hospital signed a 15-year energy performance contract involving significant investment by an energy service company, including for the design, build, operation and maintenance of a new energy centre incorporating a CHP system. Other project elements included several energy efficiency upgrade projects throughout the Palmerstown campus (including lighting and boiler controls) and a monitoring and targeting system. The overall objective was to design, implement and manage energy consumption and cost saving solutions for the campus.

Energy cost savings in excess of €230,000 have been achieved on the site following the first operational year of the project. Grid-electricity imports have been reduced by 51% and gas oil consumption has been reduced by 56% (corrected for weather). Further consumption and cost savings are anticipated in the second year.

In view of the above, public procurers should adhere to the following:

- When purchasing electricity or other energy supplies, the framework contracts developed by the National Procurement Service should be used.
- Where appropriate, public bodies procuring energy services should use innovative delivery models, including those based on energy performance contracting.

Procurement objectives for Capital Projects

It pays to both consider and integrate energy efficiency at the earliest stage possible in capital projects. The accompanying graph illustrates how energy saving potential is much greater if identified in the design phase – and how investment to achieve energy efficiency is much reduced if made during this stage.



As well as being more cost-effective, it is also easier if energy efficiency is integrated into capital projects from the outset. Energy Efficient Design (EED)⁹⁰ is a methodology that facilitates the design, construction and management of projects so that they consume the minimum quantity of energy during subsequent operation. EED should always be driven by a sound business case, and should represent an optimum balance between project capital investment expenditure and operational energy and other costs. In addition, it should either achieve a lower capital cost than less efficient alternatives, or else seek a prudent payback period when operational savings are accounted for. The benefits of EED include:

- It saves money by reducing energy usage arising from projects in the operational phase;
- It saves money by reducing capital costs in both utilities and processes;
- It provides a framework for saving even more money through the development of energy management systems for new projects.

Example: Energy efficiency in school design

The energy policy in school design of the Department of Education and Skills has evolved since conception in 1997, through a well-defined research and demonstration programme with currently 39 different research strands. The Department’s programme is referred to as Design, Awareness, Research & Technology (DART) in school design. As a result of pursuing this policy, schools built in accordance with the Department’s own technical guidance documents are capable of performing twice as well as best international practice. These schools are achieving an A3 BER rating at Primary level and a B1 rating at post-Primary level.

As part of its ongoing research, the Department is currently constructing two schools to “passive school” energy efficiency standards. For existing schools, the Department has also run a devolved attic and cavity wall insulation programme and a water conservation programme.

Example: Oberstown wastewater treatment plant

Kildare County Council undertook an Energy Efficient Design review on the proposed upgrade of its wastewater treatment plant at Osberstown. An energy baseline was defined to establish the running costs of the plant over its lifetime and to identify the main energy users within the plant. This provided focus for the review and helped to quantify the savings initiatives proposed. The detailed design of the plant was largely complete, so the scope of the review was limited to suggesting improvements to optimise the existing design. The main element of the review was a one-day workshop. In total, the EED Review identified a package of annual energy savings of the order of €177,000, with an estimated investment cost of €193,000. Over 20 years, the package will deliver an estimated €3.5 million worth of savings compared to the pre-review baseline.

A range of national guidelines is in place to assist public bodies in integrating energy efficiency into the design of projects and to align contractual arrangements with best practices in energy management. For example, contracts for capital projects should always incentivise the maximum possible energy efficiency on the part of those with responsibility for the design, procurement, operation and

maintenance of significant public sector energy using projects. In seeking to maximise their own interests, contractual parties will improve the energy performance of the entire system/project.

In light of the above, public procurers should adhere to the following:

- Public bodies procuring capital are strongly encouraged to seek advice on energy efficient design at the earliest possible stage in the project's planning.
- Public bodies should incorporate the principles of Energy Efficient Design at the design stage of capital projects.
- When procuring capital works, public bodies should follow the guidance set out in the national guidelines on energy efficient procurement for capital projects, including the "Guidelines for the Appraisal and Management of Capital Expenditure Projects in the Public Sector" and the "Working Rules for Cost-Benefit Analysis".

Key Actions

The following is a summary of actions proposed for green procurement in the energy sector:

16. All public bodies should use National Procurement Service framework contracts for procuring energy supplies.

17. All public bodies should consider using Energy Performance Contracting or similar models when procuring energy efficiency upgrades, retrofits etc.

18. When procuring equipment or vehicles from relevant product categories, public bodies shall only procure products that are listed on the Triple E register, or which satisfy the published SEAI energy efficiency criteria for the equipment or vehicle concerned. Public bodies shall specify this requirement in all procurement documentation.

19. The Sustainable Energy Authority of Ireland will develop new Triple E categories in line with the objectives of the recast Eco-Design for Energy-Related Products Directive (2009/125/EC)

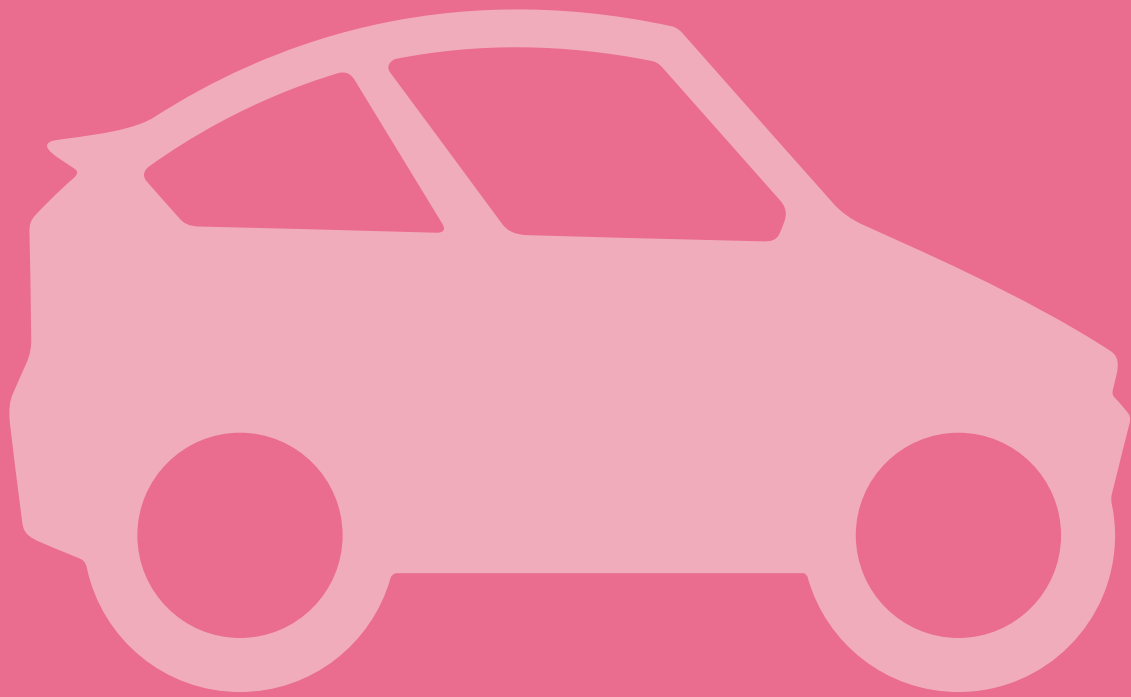
20. Public bodies procuring capital projects are strongly encouraged to seek advice on energy efficient design at the earliest possible stage in the project's planning.

21. All public bodies are required to integrate Energy Efficient Design into the project design.

22. All public bodies constructing or renovating public buildings after 31 December 2011 may consult, as appropriate, with SEAI for the purposes of ensuring that the buildings fulfil an exemplary role in the context of Directive 2009/28/EC on the promotion of the use of energy from renewable sources, and of the European Communities (Renewable Energy) Regulations 2011.

23. All public bodies are required to procure electric and electronic goods from WEEE Register Society registered producers⁹¹.

Chapter 8: Transport



In order for procurement in the transport sector to become more sustainable, public bodies should continuously seek to minimise their demand both for transport services and for transport vehicles. This can be done by a more critical appraisal of the need for the transport procurement in the first place, e.g. by considering alternatives to travel such as video-conferencing. For journeys that are essential, modal change should be encouraged and supported through the procurement of more sustainable modes of transport. Several public bodies already facilitate such modal change, for example by providing cycle to work facilities.

Both within and between public bodies, there is also scope for greater flexibility in the sharing of transport facilities. An excellent example is the National Transport Authority's car sharing scheme⁹².

Sustainable transport procurement also involves the logistics of distributing the goods and services consumed by the public sector. Good logistics management saves time, reduces costs and reduces environmental impacts. The use of IT-based logistics management and traffic management systems can further aid sustainability in this area.

Framework

Public procurers in the transport sector should be guided by the Government's policy document in this area, *Smarter Travel: A Sustainable Transport Future*⁹³. This policy document highlights the need to improve the alignment of spatial and transport planning, in order to address such issues as urban sprawl. Actions are also set out to align employment and transport policies, with a particular focus on encouraging e-working. When procuring transport services or transport vehicles, public procurers should be mindful of this policy document's five key goals: (i) to reduce overall travel demand, (ii) to maximise the efficiency of the transport network, (iii) to reduce reliance on fossil fuels, (iv) to reduce transport emissions and (v) to improve accessibility to transport.

When procuring and using transport vehicles, public bodies should take into account the following issues:

- Improved durability through, e.g. thorough maintenance and repair.
- Emissions and other pollutants in Ireland throughout the economically-useful life of the vehicle.

- Fuel consumption and associated energy consumption throughout the economically-useful life of the vehicle.
- End of life options, including the reuse, repair, recycling and disposal options.

Bus Eireann's Tyre Mileage Contract provides a good example of how appropriate end of life options can be ensured in tenders and contracts. The contract reflects a new approach to consideration of environmental factors associated with the manufacture, use and disposal of rubber products. In the Award Criteria of this contract, marks are allocated in respect of the "quality of specific arrangements" for the re-treading/re-moulding of worn tyres, the repair of damaged tyres, and the disposal of end of life tyres, "including details of standards complied with and the quality of applicable ongoing auditing/verification processes."

Costs in the transport sector – EU study

A 2007 European Commission study of life cycle costs⁹⁴ considered the life-cycle cost of vehicles in Spain, Germany, the Czech Republic and Sweden. In addition to the purchase price, the study considered annual vehicle taxes, fuel costs (based on the costs for the fuel consumed over the course of the service life of the vehicle), maintenance costs (made up of material costs for engine oil, tyres, spare parts and the corresponding labour costs), insurance costs, and end of life costs or revenues (depending on whether the vehicle is disposed of or sold). In none of the countries studied did the procurement of greener vehicles lead to substantially higher costs – and in some cases it led to slightly lower costs, although this depended mainly on national taxation policies. According to the study, life-cycle costs of the specified green vehicles (diesel-driven cars equipped with particulate filters) were only slightly more expensive than the non-green versions. In Sweden and in Germany, bio-ethanol and compressed natural gas benefited from lower tax, leading to the possibility of substantially greater savings in those markets. The study found this to be the case also with respect to the procurement of buses.

Cost considerations in the transport sector in Ireland

The broad conclusion of the EU study cited above is that that opting for the greener transport option is reasonably cost-effective. Ireland's relatively high consumption of imported fossil fuels, in tandem with the Government's introduction of fiscal measures such as the carbon tax, strengthens the business case for the use of greener

alternatives in Ireland. For example, the Smarter Travel policy document notes that the long-term trend of the cost of fossil fuels is likely to be upwards. Due consideration must always be given to the upfront costs of the most advanced environmentally friendly transport solution, which in some cases may not be commercially viable⁹⁵. In all cases, however, these upfront costs should be considered in tandem with costs in use and other economic and environmental costs. In assessing tenders from suppliers and service providers, the areas of maintenance, operational, disposal, sale price achieved, and final removal costs are fully as relevant to value for money considerations as are the costs of initial purchase.

Mandatory requirements

In this particular category of procurement there is a substantial amount of legislation which needs to be embraced by all procuring authorities to ensure a 'greener' approach to the purchasing of transport solutions. Three examples are eliminating the sulphur content of gas oil procured by the public sector; limiting the use of volatile organic compounds in the re-spraying or recoating of vehicles used by the public sector; and implementing the EU's Clean Vehicles Directive (2009).

Sulphur content of gas oil

Under S.I. 155 of 2011, public bodies are obliged to insist on "sulphur free" gas oil when purchasing this fuel for use in appropriate vehicles⁹⁶.

Volatile Organic Compounds in the re-spraying or recoating of vehicles

Public bodies must ensure that their procurement activities are in compliance with all aspects of environmental legislation. In the recent past, local authorities have come across cases where public service vehicles have been resprayed, in the course of their repair, in workshops which are non-compliant with statutory restrictions on volatile organic compounds. Under S.I. 199 of 2007⁹⁷, installations which carry out vehicle refinishing for repair are obliged to meet certain mandatory requirements in terms of the products and practices they use to recoat vehicles. It is an offence for such a facility to operate without a valid Certificate of Approval, issued by the local authority. Mobile operators carrying out vehicle refinishing are also covered by these Regulations. Public bodies which manage vehicle fleets should automatically request a copy of a valid and up to date Certificate of Approval from an operator as a

precondition to engaging their services, when such services include the respraying or recoating of a vehicle.

It should also be noted that the servicing of vehicles (apart from re-coating etc) generates a lot of hazardous waste such as oils and anti-freeze that needs to be managed correctly. The EPA's National Waste Prevention Programme has developed and disseminated the Smart Garage Guide⁹⁸, which should be referred to by all public procurers in the transport sector. As well as tips for correct handling of these wastes, the Guide outlines how to make financial and environmental savings on electricity, water, compressed air and other essential elements for vehicle maintenance. The Guide also lists a very clear summary of legislation pertaining to garages. In view of the public sector's exemplary role, those in charge of vehicle maintenance in the public sector should ensure that they are compliant with this list at all times.

The Clean Vehicles Directive

The Clean Vehicles Directive⁹⁹ obliges EU Member States to ensure that, as of December 2010, all public contracting authorities who are procuring road transport vehicles take into account the operational lifetime energy and certain environmental impacts, including energy consumption, emissions of CO₂, and emissions of nitrous oxide (NO_x), non-methane hydrocarbons (NMHC) and Particulate Matter. This represents a significant increase in the requirements placed on public procurers, and makes it even more important that existing best practice examples are emulated throughout the Irish public sector.

Alternative Fuels and Electric Vehicles

The Clean Vehicles Directive allows preference to be given to alternative fuels, such as hydrogen, Liquefied Petroleum Gas (LPG), Compressed Natural Gas (CNG) and biofuels, "provided the lifetime energy and environmental impacts are taken into account". A recent report on biogas by the Joint Oireachtas Committee on Climate Change and Energy Security¹⁰⁰ states that methane-fuelled vehicles emit lower amounts of local (particulates) and global (CO₂) pollutants than petrol or diesel, and that the fossil fuel dependence of the Irish economy could be reduced by displacing oil-based products with natural gas and a growing share of biogas derived methane. The report also acknowledges current constraints on the widespread uptake of such alternative fuels across the EU, such as the lack of a common fuel standard for bio-methane.

Electric vehicles

Drive for Zero,¹⁰¹ the report on electric vehicles carried out by the Joint Oireachtas Committee on Climate Change and Energy Security in 2009, concluded that the wider use of electric vehicles, and in particular battery electric vehicles, could reduce Ireland's transport emissions and our over-dependence on imported fossil fuels. Subject to a range of caveats and underlying assumptions, the report outlines how cost savings could accrue by 2030. These findings were contingent on (amongst other things) an abundant supply of renewable energy (especially at night time which would be the optimal time for battery electric vehicles to be recharged), and the building of a nationwide infrastructure for both battery replacement and battery recharging. The findings also assumed mass production of electric vehicles in response to increasing market demand and public confidence; as well as regulatory measures such as an EU-wide standard for batteries. The report's recommendations included the setting of "a clear legislative landscape and a strategic framework for 2020 and beyond with regard to vehicle efficiency standards, which will act as a driver for technological innovation".

In general, Public procurers in the transport sector should exercise caution when seeking to determine which alternative is most cost-effective and most beneficial to the environment. While additional marks in a tendering process may be awarded to a technology that is viewed as more environmentally friendly along a certain criterion, consideration may also need to be given to some of the other consequences which may arise from focussing on that criterion. For example, including criteria for low vehicular CO₂ emissions may occasion a shift from petrol to diesel engines, which tend to have more NO_x and particle emissions. Similarly, while additional marks may be awarded for biofuels, which may be viewed as more sustainable, additional life cycle costs may also arise which should also be accounted for in the award and scoring mechanisms. Such additional costs could include supply issues (e.g. if the vehicle needs to travel further to source a fuel pump with the correct blend of fuel), increased service intervals, oil changes, filter replacements, consumables, opportunity costs (e.g. downtime), labour, and parts usage.

Current Irish best practice

CIÉ

The CIÉ group of companies (Iarnród Éireann – Bus Éireann and Bus Átha Cliath) are leading the way in terms of best

practice. CIÉ is committed to implementing a sustainable procurement approach in the acquisition of materials, services and works, in particular where this delivers tangible benefits and value to the organisation. To fulfil this commitment, where practicable, CIÉ seeks to increase its procurement of goods and services that are more responsible to the environment, and that support local communities and businesses, in the following ways:

- ensuring that sustainability is given adequate consideration in the design of buildings, vehicles, plant and equipment
- sourcing materials and services that are energy efficient, minimise waste and do not adversely impact on the environment
- encouraging suppliers to offer environmentally-friendly alternative goods and services and giving due consideration to such alternatives
- encouraging suppliers to introduce environmentally friendly products and processes
- using sustainable supplier selection and contract award criteria in tenders and Requests for Quotation where appropriate
- ensuring CIÉ suppliers comply with all relevant environmental and social legislation.

In their tendering processes, CIÉ use a life cycle assessment approach to assess the most economically advantageous tender. Suppliers are required to demonstrate their compliance with international best practice in their employment, environmental and health and safety policies and procedures. Furthermore, volumes of waste generated are monitored and managed; while energy rating is taken into account in the purchase of vehicles, equipment etc.

Bus Éireann

Several green procurement initiatives are currently underway in Bus Éireann. These include :

- Implementation of Eco-Driving Training & Telematics Pilot
- Vehicle Tender Specifications include minimum Euro V standard for emissions and requests for alternative technology options
- Exhaust pipes fitted to the rear or offside
- Implementation of engine idling reduction strategy
- Transfer to low saps extended life lubricants & reduction in change intervals

- Sustainability criteria for tyres (regrooves, retreads, repairs, recycling/ disposal)
- Vehicle Tender Specifications include options for TPMS
- Installation of Energy Efficient Garage Lighting
- Installation of water reclamation systems
- Optimisation of electricity and gas consumption

Example: CIÉ procurement of new buses

CIÉ are currently integrating the requirements of the Clean Vehicle Directive into their tendering process, by means of the Award Criteria to be used for the purchase of new vehicles from 2012. Below is the relevant extract from the award criteria document outlining environmental considerations:

Environmental Considerations (Supporting evidence from an independent body only, is required).	75
NOX Emissions	20
PM Emissions	20
NMHC Emissions	20
CO ₂ Emissions	15

In addition, CIÉ has monetised total cost of ownership as a figure for consideration in conjunction with Capital Cost of the vehicle, whereby a lifetime average mileage is calculated with respect to fuel efficiency etc. Total cost is to comprise:

- (i) Vehicle Purchase Cost (capital cost)
- (ii) Running Cost : 450,000 miles (over 12 years) multiplied by the cost per mile of fuel (supported by verifiable average miles per gallon figures based on Sort (urban) cycle). Supporting evidence from an independent body only, is required.

[Fuel costs will be calculated using NPV (net present value) at 4% test discount rate – in accordance with the Department of Finance guidelines]
- (iii) Cost of spare parts, including associated labour costs, over 12 years [To be calculated using NPV]

CIÉ intend to introduce further elements of sustainability, especially via selection and award criteria, for a number of upcoming suitable tender processes – where there is a valid business case for doing so and where the

sustainability criteria are practicable and objectively verifiable. Prospective suppliers may be asked to prove at tender stage that the product or service in question meets certain standards of sustainability, which will be specified in advance and be clearly defined, open and transparent.

In other cases, as well as submitting their standard offering, tendering companies may be asked to submit alternative more sustainable proposals that will deliver additional “people” (social) or “planet” (environmental) benefits. This will enable the costs as well as the benefits of the more sustainable option to be directly compared with the standard offering. It is intended that each of the operating companies (Iarnród Éireann, Bus Éireann and Bus Átha Cliath) will undertake three pilot projects, with the objective of delivering more sustainable outcomes with benefits for all stakeholders – CIÉ, the environment; and local communities and businesses.

Example: Procurement of energy efficient lighting by Bus Átha Cliath

Dublin Bus has recently undertaken a tender process to engage the services of a Lighting Supplier to provide an energy efficient solution for replacing the current lighting in its Garage Workshop, Night Service Bays and Bus Parking Yards. It is expected this undertaking will have the potential to deliver significant savings in terms of energy usage.

Example: Iarnród Éireann tendering process for road vehicle fleet

During 2010, Iarnród Éireann completed a procurement process covering its road vehicle fleet requirements. The specification incorporated the following requirements related to the lifetime energy and environmental impacts of the proposed fleets:

a specified minimum of Euro IV engines (i.e. engines meeting European emissions standards, stage IV)

specification for CO₂ emissions Bands and g/km per vehicle type

As part of the tender evaluation process, a whole life cycle cost analysis of fleet alternatives was undertaken, which included measurement of the relative fuel efficiencies.

Key Actions

The following are the key actions proposed for green procurement in the transport sector:

Actions

24. The requirements of the Clean Vehicles Directive should be adopted by all relevant public bodies and be communicated to all public procurement officials with responsibility for transport
25. Public bodies must insist on “sulphur free” gas oil when procuring this fuel for use in appropriate vehicles.
26. The Department of Transport’s Common Appraisal Framework for Transport Projects and Programmes should inform all public sector procurement of transport services.
27. Fuel-efficient driving techniques should be included in the training of relevant personnel – bus drivers, members of An Garda Síochána, etc.

Chapter 9: Food and Catering Services



Green public procurement in the food sector has many potential benefits, including:

- Reducing pesticides and fertilisers present in water, air, soil and food
- Reducing soil erosion, habitat destruction and loss of biodiversity caused by inappropriate agricultural or aquaculture practices.
- Reconnecting consumers and producers, leading to greater understanding of food and farming
- Enhancing the demand for food that is fresh and in season
- Reducing the need for preservatives and additives – as food would not need to last so long
- Reducing packaging and food waste

This chapter outlines how the public sector can reap these benefits, while fully respecting all public procurement principles including open and fair competition. Examples of the role already being played by public procurement, as an enabler of good procurement practices in the food and catering sector, are also included.

Given Ireland's profile as a major exporter of food, the international perception of the food production standards set and enforced is all-important. The introduction of strict (appropriate) GPP criteria for food and catering services thus also represents a significant marketing opportunity. By embracing and promoting environmental sustainability in food production Ireland can position itself as a world leader in emerging international trends. Examples of how this may be done include the proposed Green Ireland food label in tandem with branding efforts such as those envisaged in Food Harvest 2020.

It is acknowledged that the food industry at all times has to maintain food safety and this may require the continuing use of resources which have a negative impact on the environment¹⁰². However, it is equally the case that the Irish food sector has already made great progress in enhancing its environmental profile and minimising its impacts. Considerable advances have been made in terms of using less packaging and recycling of packaging. Where practical, food suppliers have invested reusable containers systems and this has greatly diminished the requirement for one trip disposal packaging and the associated waste.

Framework

It is important to ensure that any GPP requirements for food under public sector contracts are achievable for all indigenous food suppliers, small as well as large. The public sector procures food and catering services predominantly by way of catering services providing a food facility to public institutions, the Defence Forces and canteen/cafes of public buildings. Other procurement is by way of the provision of school meals by Local Authorities.

As such, most of the services required in this area are tendered out. Services are often “bundled” if they are required to produce the final output jointly, e.g. providing meals can include catering, food and drink supplies, processing etc. For this reason, opportunities to make the catering elements of food procurement more sustainable should be considered. Possible award criteria for food catering services could be the use of energy efficient equipment to specified standards, the use of fuel-efficient transport, or the use of reusable crockery or cutlery. However, in some cases (e.g. in hospitals), reusable implements/utensils may not always be appropriate. Also, when considering whether to opt for re-usable implements, account needs to be taken of consumption of energy, cleaning products and water when preparing them for re-use.

The European Commission¹⁰³ has identified specific selection criteria to be used in preparing, evaluating and awarding contracts in public bodies. These criteria address the most significant environmental impacts requiring minimum additional verification by procurement officers in charge of the tender process. Procurers in the Irish public sector, their suppliers and other stakeholders need to be aware of these EU benchmarks especially in terms of the evolving market for more sustainable produce.

Criteria adopted at EU level specifically address organic and sustainable production methods as well as packaging waste standards. Additional criteria may be used by procurement officers who want to further stimulate the market to supply the most sustainable products possible. These criteria may address other aspects such as the procurement of food produced according to specific production standards, and animal welfare.

The Government's strategy on the future development of the food industry, Food Harvest 2020¹⁰⁴, recommends that the Irish Food and Drinks Industry be innovative, efficient, and a global leader in environmentally sustainable

production. Sustainability concerns are intimately bound up with increased industry efficiency.

Ireland can further leverage its credentials through linking green food production methods to enhanced marketing opportunities. This is best expressed as smart, 'green growth', which implies creating a strong link for consumers between Irish food, high environmental standards and sustainable production, including extensive, low input, grass-based production systems.

The sourcing of Fairtrade goods, where possible, should be part of all Government Departments' purchasing policy. Those public bodies that want to source Fairtrade and other similar products should ensure that the purchase of such products is in line with European Union legislation and guidelines.

Organic food and food in season

The organic sector in Ireland is still very small in percentage terms (approximately 1% of farmland), although Food Harvest 2020 endorses ambitious Government commitments to increase organic land use to 5%. Total sales of organic food products in Ireland amount to approximately €100 million per annum, with only approximately 30% of sales being domestically produced. The remaining 70% which is imported may well have a higher carbon footprint.

As such, the setting of high levels for the procurement of solely organic food would be unrealistic, given current market conditions. However, there are a number of mainly small suppliers producing artisan/organic food in Ireland. It may therefore be appropriate, where efficiency and economy are not compromised, to introduce a proportion of the award criteria in a contract for organic food (rather than setting too high a percentage in the contract specification). At all times, it is important that procurement officers engage with potential suppliers as part of their pre-procurement processes to advise smaller food companies of tender requirements. Good supplier engagement pre-procurement is key to smaller food companies competing successfully for large public sector contracts.

Public procurers may be encouraged to buy more food that is in season and/or produced regionally. Public sector contracting authorities could procure in such a way as to encourage tendering from SMEs and other suppliers in the region¹⁰⁵. It is recognised that expenditure on local food strengthens the region's economy, enhances local culture

and potentially reduces transport costs and associated environmental impacts. All such tendering must be demonstrably in compliance with the Single Market principles of non-discrimination, transparency and the free movement of goods¹⁰⁶, for example, a contracting authority can attach to a tender (in an annex) a seasonal food calendar of the region.

Environmental/Quality assurance schemes

Apart from recognised Environmental Management Systems (e.g. ISO 14001), there are a range of environmental and wider quality assurance schemes that are food sector-specific and from which criteria for GPP can be derived. These include:

- Bord Bia Quality Assurance Scheme – applicable to beef, eggs, lamb, pigmeat, poultry and horticulture. Certification is in accordance with I.S. EN 45011. From January 2011, the Beef Q.A.S. includes auditing of the environmental sustainability of farms.
- Dairy – while there is at present no national quality assurance scheme for the dairy sector in operation, other initiatives are in place. For example, some agri-food companies operate their own dairy farm assurance scheme in accordance with I.S. EN 45011.
- Fisheries – examples include the BIM Aquaculture standards and Quality Seafood Programme, and the Marine Stewardship Council.
- Food safety management system standards that comply with food hygiene regulations.

The Bord Bia Quality Assurance Scheme is an integrated scheme involving the producer and food companies working in partnership to provide the customer with quality assured produce. The scheme describes the essential quality assurance requirements for meat, poultry, eggs and certain horticulture produce, from farm level through factory processing to retail. It lays down standards to be complied with at each step of the production chain. The Scheme is accredited under I.S. EN 45011.

In addition to meeting legal requirements, farmers are audited against a range of standards including animal health, welfare and traceability, water and feed, pasture management, environmental management and farm safety. Requirements for processors include product identification and traceability, inspection and testing, and hygiene.

The organic sector in Ireland is regulated by the Department of Agriculture, Food and the Marine. Farmers, growers and processors undergo a stringent annual inspection process before receiving a licence from one of the organic certification bodies to sell their produce as organic. There are a number of quality assurance/certification schemes that cover organic production methods. Organic farming requires the consideration and application of production methods that do not damage the environment, assure a respectful use of the countryside, and demonstrate concern for animal welfare.

The use of the new EU organic logo (July 2010) is compulsory for organic pre-packaged food produced within the European Union. In addition, it is also possible to use it on a voluntary basis for non pre-packaged organic food produced within the EU or any organic food imported from third countries. National and private labels remain valid and can be displayed on organic products next to the Euro-leaf logo.

Targets for food procurement

In light of low organic production levels in Ireland, an alternative environmentally sound, measurable and regulated food production system is required if we are to meet EU GPP targets. The principle of food produced under accredited schemes which incorporate a significant sustainability element provides a solution. As stated previously, the Bord Bia QAS ensures that food is produced according to approved standards. Accordingly public sector contracting authorities should use the principle of food produced under a recognised accredited scheme as the primary measurement of sustainable, environmentally procured food.

Where economically viable each of four specified food categories (Meat, Poultry, Eggs, and Seafood) purchased as part of public tenders should be sourced from either recognised accredited schemes which incorporate a significant sustainability element and/or organic schemes. Verification would require, as appropriate, the supply of both EC plant numbers and or scheme member numbers from schemes recognised by the Department of Agriculture, Food and the Marine. The benchmark for such schemes would be the Bord Bia Quality Assurance Schemes, the certification schemes that cover organic production methods which are accredited to EN45011 standard¹⁰⁷ or equivalent schemes from other EU member states.

Other possible award criteria for food catering services could be the use of energy efficient equipment to specific standards, reusable cutlery etc. and could be verified by way of a signed declaration.

Example: Marine Institute procurement of organic food

The Marine Institute recently tendered for the procurement of organic ingredients for their workplace canteen, while introducing a redesigned menu that sought to maintain the unit cost of the meal while reducing the amount of food waste.

Development of this initiative involved identifying food ingredients that suited both the type and style of catering, and the food safety management systems in operation (shelf life, preparation needed etc.). The initiative also identified food ingredients that could be sourced locally, as well as local food producers who had food safety management systems in place to fulfil “approved supplier” controls for contract caterers.

The Marine Institute used the following organic ingredients for their canteen: beef; lamb; salmon; vegetables and salads; and goats’ cheese. The new menu was initially introduced for one day each week. It was noted that organic ingredients led to a significant reduction in food waste, which meant that they cost no more than previous ingredients when levels of food waste were accounted for. Staff feedback was also very positive in terms of taste, quality and menu choice.

The Marine Institute’s initiative shows that organic foods can be introduced to public sector canteens at little or no extra cost, provided that the focus of procurement is on local and seasonal food ingredients.

Key Actions

The following are the key actions proposed for the green procurement of food and catering services.

28. As part of the selection criteria for food and catering services, contractors should be required to prove their technical and professional capacity to perform the environmental aspects of the contract. An environmental management system, e.g. ISO 14001, or equivalent standard, is deemed proof. Verification can also be demonstrated by an environmental policy, documenting work instructions and procedures for carrying out the service in an environmentally friendly manner.
29. Where economically viable, food from the Meat, Poultry, Egg, and Seafood categories will be sourced from accredited schemes which incorporate a significant sustainability element and/ or organic schemes.
30. For all other categories (including ones where no accredited national schemes currently exist), the contracting authority should ensure that sustainability and/ or organic criteria are clearly identified in their tender documents.
31. When tendering for food procurement, public authorities should allocate some marks for food in season, regional food, organic food and/ or artisanal food, depending on market conditions
32. Public sector contracting authorities should consider the distance that food will travel from point of production to point of use.
33. Tender and contract specifications should require minimisation in the amount of food packaging.
34. Other award criteria for food catering services should include the use of energy efficient equipment to specific standards, and reusable cutlery.
35. Contracting parties should be required to deal with food waste in compliance with the national composting standard (once finalised) and the *Food Waste Regulations (SI 508 of 2009)*.

Chapter 10: Cleaning Products and Services



Through better procurement of cleaning products and services, public procurers can significantly mitigate detrimental environmental and health impacts. Due to the nature of cleaning activity, it has high potential for use of chemicals and products that could be harmful to the environment. These impacts are considerable and not all of them are fully researched. Certain cleaning agents contain solvents classified as harmful to health posing risks to the occupational health of employees. In addition, the use of certain substances within cleaning agents can give rise to:

- air pollution, ozone formation (smog);
- bioaccumulation or food chain exposure;
- hazardous effects on aquatic organisms;
- the increased growth of undesirable aquatic organisms.

Nonetheless, every public body uses cleaning products in the normal course of the maintenance of their premises. It is essential for public procurers to be particularly vigilant with regard to cleaning products and services in order to purchase only what is essential while still maintaining the highest hygiene standards.

Cleaning products need not necessarily contain chemicals e.g. lemon juice; baking soda and vinegar are adequate for many cleaning tasks.

Framework

In the cleaning category, procurement involves two broad activities – direct purchasing of cleaning products; and retention of contract cleaning services

Purchase of cleaning products

Public authorities should ensure that the cleaning products they use meet strict environmental criteria. These would include the elimination as far as possible of Phosphates ensuring that all relevant products comply with the EU Directives on Biodegradability of surfactants¹⁰⁸ and that safe pH levels apply.

Containers and packaging for cleaning products generate large volumes of waste, some of which can be hazardous. As with all other areas of procurement, public procurers should consider the amount and nature of packaging attaching to products purchased. Every opportunity should be used to minimise packaging and to recycle.

Procurement of cleaning services

Many public authorities have their cleaning services carried out by private contractors. The tendering procedure for selecting the contractor offers opportunities for improving the environmental and health performance of these services. The reduction in the use of cleaning chemicals through using appropriate dosages or new cleaning techniques is a particularly efficient way to reduce the environmental impacts of cleaning.

In drawing up the work instructions, the contractor should consider the appropriate cleaning frequency for different areas of the building (without compromising quality of service provided). A number of products typically used in cleaning services are often used too frequently or may even be unnecessary from a hygiene perspective. Such products include toilet bowl freshener, cistern additives, deodorising blocks for urinals, air freshener, chemical drain cleaners, fabric softeners, floor finish based on water-insoluble polymers, disinfectants, aerosol cans and propellants.

Example – OPW contract for Janitorial Supplies:

The products included in the National Procurement Service's central contract for janitorial supplies are based on best environmental practices in conjunction with green procurement guidelines. Phosphates are eliminated as far as possible, all relevant products comply with national and EU legislation and safe pH levels apply throughout. Under this contract all paper products are recycled and biodegradable.

The current three-year contract for Government Departments has a value of some €5.8 million, approximately 30% of which relates to products with the appropriate environmental credentials.

Example – Department of the Environment, Community and Local Government – retention of cleaning services

When tendering to retain the services of a cleaning contractor, the Department of the Environment clearly stated its intention to secure a service solution that was as environmentally friendly as possible. The following contract stipulations illustrate how this intention was put into effect:

- Only cleaning materials that have the least harmful effect on the environment are to be used. A list of such materials was required in advance of the commencement of the contract and has to be updated at regular intervals.
- Tenderers were required to submit a written statement to the effect that they were in compliance with all legal requirements, industry standards and codes in relation to the use, training, storage and disposal of all cleaning and related products.
- As the Department has ISO certification for its headquarters in the Custom House, tenderers were required to set out their proposed measures to ensure compliance with this standard and with the Department's Environmental Policy Statement.
- Tenderers were also required to co-operate with the Department "to implement ongoing measures towards achieving efficiencies in environmental management".
- The Department's tendering process also allocated marks for "the overall quality of the service proposal", so environmental and social issues could also be taken into account at that stage.

Key Actions

The following key actions are proposed for cleaning products and services:

36. The central janitorial contract currently provides for the purchase of approximately 30% of products with environmental credentials. All similar future centralised procurement contracts should move progressively towards a minimum target of 50% of products with green/environmental credentials.
37. All Government Departments and Agencies with a procurement role should examine the current examples of best practice in this category of purchasing and where practicable integrate them into their procurement processes to ensure an increased use of products and services with green/environmental credentials.
38. All public bodies procuring cleaning services should ensure adequate provision in the contract for the training of staff deployed to service the contract.
39. On achieving the target of 50% a review of the market should be conducted to establish, where possible, a series of additional milestones to increase substantially the use of environmentally friendly solutions.

Chapter 11: Paper



Paper is one category of purchasing that is common to all public administrations. It is also a particularly interesting category of purchasing in that it is one where the market has embraced the concept of GPP from an early date and has developed its processes in a manner where the green solution is now frequently seen as the preferred option.

As is the case in any other category of procurement, sustainability of paper procurement begins with minimising paper use. This is also the most cost-effective solution. Public bodies should encourage their employees to consume no more paper than is necessary, in the first instance by thinking about need before printing documents, generating multiple copies etc. There are also simple technology and training solutions – e.g. setting printers to print double-sided as their default option – which can significantly reduce paper use.

Example – Limerick County Council and University of Limerick reduction of paper use

Through the EPA’s Local Authority Waste Prevention Demonstration Programme, Limerick County Council and the University of Limerick undertook an initiative to demonstrate best practice for reducing the amount of A4 office paper consumption. The project gathered baseline data on paper consumption within both organisations, to raise awareness about the impact excessive consumption of paper can have on the environment and in so doing change behaviour. The project also sought to improve the capture of paper in the recycling stream in UL.

Both organisations carried out a series of environmental audits to identify waste prevention and reduction opportunities. These audits focused on how paper was being used and attempted to identify work practices that resulted in excessive consumption of paper.

Raising awareness was a key component of the project within both organisations. Informing staff of changes was one aspect but seeking their views on improvements that could be made within their own sectors was equally important.

The main component of the project involved altering printing equipment to default to duplex print. This was coupled with an acceptance that double-sided printing was now standard practice for both organisations. Within 3 months all shared printers and copiers managed by the University campus IT Department were defaulted to print double-sided. In addition, Limerick County Council sought to encourage more electronic communication, particularly in the form of e-meetings. The data emerging from the project also assisted the County Council’s IT department in developing a tender for the supply of a new print management service for County Hall. This new equipment defaults to print duplex and has the scan to email function.

Results	2006	2008/09	% reduction
Sheets of paper consumed per staff member in Limerick County Council	8157	6967	14.6%
Average no of sheets of paper consumer per full time student in University of Limerick	2460	1536	37.6%

University of Limerick achieved a 37% reduction in paper consumption, while Limerick County Council reduced their office paper use by almost 15%. Following the introduction of new copying equipment, Limerick County Council is on target to achieve further reductions¹⁰⁹.

The “Costs and Benefits of Green Public Procurement in Europe” study found that the purchasing costs for public authorities of green (including 100% recycled and eco-certified copying paper) and non-green copying paper were very similar. Comparing the four countries studied, “green” versions of copying paper were significantly cheaper (23%) in Germany; in Spain and Sweden “green” copying paper was about 4% more expensive; while in the Czech Republic prices were virtually identical (0.2% difference). The price variations were found to be due more to differences between different brands and quantities purchased, than due to differences between “green” and “non-green” products.

The findings of the EU study on costs and benefits of GPP are reflected in the experience of the National Procurement Service, as cited in the example below. This particular category furnishes an excellent example of how

markets can evolve and change as a reaction to specific demand. Market analysis initially demonstrated that the market could not competitively tender for recycled paper of sufficient quality. However, due to a clear articulation of anticipated future requirements, a suitable supply eventually emerged.

As the example cited below also shows, crucial to the success of GPP in the case of paper was the phased move towards the use of a recycled solution. It is important for public procurers to be alert to such possibilities, the consequent opportunity to exercise market leverage.

Paper represents a “quick win” for any organisation seeking to enhance their performance in terms of GPP.

Example – National Procurement Service procurement of paper

The National Procurement Service has a contract in place for supply of white paper in A3 & A4 sizes, available to all clients for use in photocopiers, printers, etc. The paper supplied under this contract is recycled. The overall value of the paper contract is €1.9m. The percentage of paper, with green credentials, drawn down under this contract is 95.81%.

The National Procurement Service, and its predecessor the Government Supplies Agency serving central Government Departments, made both virgin and recycled photocopying paper available through two centralised contracts. Initially there was a considerable price and quality differential between virgin and recycled paper. The client departments selected the product they required generally on a price basis. Initially the bulk of the paper used was virgin. A partial reason for the price differential was because the quantities tendered reflected a 95/5% virgin /recycled split in requirements. The balance tipped in favour of virgin paper with regard to economies of scale.

A mid way phase came in the evolution of paper procurement when the price of recycled paper came close to that for virgin and quality also came closer to the virgin specification. At that time the centralised contracts were comparing like for like i.e. on an equal quantity basis. This brought about a greater but not significant use of recycled paper.

The real breakthrough came as the quality of the recycled paper equalled that for virgin and for the first time the prices for recycled paper were lower. There was still, however, a reluctance by clients to move to recycled paper. Due to the increase in quality and the reduction in price it became possible to award contracts for recycled paper only and remove the choice of using virgin paper thus resulting in 96 % use of recycled paper. The remaining 4% generally comprise specialist papers. Envelopes supplied under NPS contracts are generally made from recycled paper and are wood-free (i.e. Free of Mechanical Wood Pulp). The annual spend on envelopes is €860,000, approximately 63% of which is to the above “green” specification.

Key Actions

The following are the key actions proposed for paper:

40. The National Procurement Service’s central paper contract allows for the purchase of approximately 95% of recycled paper. This level should be maintained.
41. All public bodies who procure their own supplies of paper should move progressively towards the green standards established by the National Procurement Service. Where they cannot achieve this target in 2012 they should seek to have it included as part of the next central contract.
42. All public bodies should have a policy of minimising paper usage, including duplex printing as a default setting, circulation of electronic documents, printing documents only when essential etc.

Chapter 12:

Uniforms and other textiles



Chapter 12 • Uniforms and other textiles

Most uniforms and other textiles consumed in Ireland are imported, with Asian countries accounting for a large proportion of these imports. Nonetheless it is incumbent on Irish public procurers to take account of environmental impacts of all textiles procured just as they would for procurement involving products that are predominantly sourced in Ireland or elsewhere in the EU.

Negative environmental impacts associated with textile production often arise through the inappropriate use of certain pesticides and fertilisers in the production of fibres. Harmful effects can also be caused by substances used during the processing of fibres and final textile products. These negative impacts can include:

- air pollution, ozone formation (smog)
- bioaccumulation or food chain exposure
- hazardous effects on aquatic organisms
- the increased growth of undesirable aquatic organisms

Framework

When tendering for uniforms and other textiles, public procurers in Ireland should refer to the European Commission's GPP guidance documents¹¹⁰ and toolkits in this area. These cover all textile products covered by the EU Ecolabel – namely textile clothing and accessories (such as handkerchiefs, scarves, bags, shopping bags, rucksacks, belts etc) consisting of at least 90% by weight of textile fibres; and textile products for interior use (excluding wall and floor coverings) consisting of at least 90% by weight of textile fibres. Products meeting EU Ecolabel listed criteria for textiles are deemed to have met GPP criteria.

In addition, award criteria are included relating to the use of organically produced cotton and recycled fibres. Additional points may also be awarded for these components at the award of contract stage. Tenderers can be required to indicate the proportion (by weight) of cotton or other natural fibres used in the final product derived from organic production¹¹¹. Tenderers may further be required to indicate the proportion of the product (by weight) made of recycled fibres, i.e. fibres originating only from cuttings from textile and clothing manufactures or from post-consumer waste (textile or otherwise).

It is recognised that the degree to which specifications can be altered to facilitate more environmentally-friendly products may be limited, due to the consistency/uniformity of the products required and the need to meet

other exacting specifications. Nonetheless, in addition to the guidance available from the EU GPP website, public procurers should also refer to the best practice already established by the National Procurement Service. The NPS manages the procurement of uniforms and textiles on behalf of Central Government, the Defence Forces, An Garda Síochána and the Irish Prison Service.

Public bodies involved with the procurement of textiles, garments and uniforms need to be particularly mindful of the social dimension of sustainable procurement. Public bodies should seek to source goods and services from suppliers whose working conditions meet ILO standards. They should refer to the National Procurement Service guidelines on ethical working standards and (especially for goods sourced abroad) to the European Commission's guide to socially-responsible public procurement, *Buying Social*¹¹² and the ISO's social responsibility standard, ISO 26000.

Example: National Procurement Service procurement of uniforms

NPS contracts for uniforms and other textiles include mandatory stipulations with regard to environmental impacts. For example, suppliers are to eliminate or reduce dangerous and harmful substances from the manufacturing process in accordance with the Solvents Directive¹¹³. NPS monitors adherence to such regulatory requirements.

Progress has also been made in the area of reducing packaging. Current contracts require uniform packs, i.e. an individual's annual requirements, to be delivered in a single reusable carton. This has eliminated the packaging for each individual item.

As ethical working conditions are an issue in this particular market the NPS has adopted an ethical working standard for garment manufacturing.

Key Actions

The following are the key actions proposed for uniforms and other textiles:

43. All public bodies involved with the procurement of textiles, garments and uniforms should familiarise themselves with the guidance provided by the European Commission on the EU Ecolabel.
44. All public bodies involved with the procurement of textiles, garments and uniforms should maximise the use of recycled, recyclable or organically produced materials.
45. Public bodies involved with the procurement of textiles, garments and uniforms need to be particularly mindful of the social dimension of sustainable procurement. They should refer to the National Procurement Service guidelines on ethical working standards and (especially for goods sourced abroad) to the European Commission's guide to socially-responsible public procurement, Buying Social, and to the ISO's social responsibility standard, ISO 26000.
46. The National Procurement Service should continue its work towards minimising any adverse environmental impact resulting from the purchase of clothing and uniforms.
47. All public bodies should seek to minimise the packaging associated with the purchase of uniforms and textiles.

Chapter 13: ICT



Good public procurement, especially in a GPP context, involves only consuming those resources that are needed at the time in which they are needed. To do this effectively requires the continuous improvement of processes, people and technology. Clearly, ICT has a key role to play in this context. When deployed effectively, ICT boosts the efficiency of the procurement process economically, environmentally and socially.

Green Tenders therefore supports both the use of ICT in the greening of procurement overall, and the greening of procurement in the ICT area specifically. This is especially desirable given the prominence of the ICT sector in the Irish economy. The Programme for Government 2011 points out the scope for closer linkages between these factors.

Framework

The Programme for Government commits to the rationalisation of “core processes that are duplicated across the public service, by establishing shared backoffice operations”. This commitment encompasses public procurement of information technology equipment, processes and services. In the specific case of the education sector, the Programme prioritises “the integration of IT in teaching and learning across the curriculum and investing in broadband development to ensure schools have access to fibre-powered broadband. Investment in ICT will be maximised through pooling of ICT procurement.”

More broadly, the Programme for Government commits to the greater use of cloud computing by public bodies, allowing them easier access to online services from external providers. This is part of a major focus on how Ireland can maximise the potential offered by cloud computing.

These Programme for Government commitments are consistent with developments at EU level. The Transport, Telecommunication and Energy Council of December 2009¹¹⁴ called for a constant effort to use e-Government in innovative ways to reduce the administrative burden, improve organisational processes and promote a sustainable low-carbon economy. Council conclusions re-affirmed that, given the importance of Green ICT in the context of an eco-efficient economy, it was necessary to set a concrete agenda, including low energy ICT and active incentives to “go green”. EU institutions and the Member States were called upon to lead by example and use public procurement as a way to increase the use of emission-reducing technologies. Environmental design and operation should accordingly be part of each public tendering process for ICT services and equipment in Ireland.

eProcurement

The development of the public sector’s capacity for electronic procurement (eProcurement) facilitates the use of ICT in greening the procurement process itself. Greater use of eProcurement delivers both cost savings and environmental gains. The etenders¹¹⁵ website, maintained by the National Procurement Service, is an excellent Irish example of this; as is LAQuotes¹¹⁶, an online tendering/quotation solution developed by Kerry County Council in order to streamline procurement processes for both local authorities and their suppliers. At EU level, the European Commission maintains the Tenders Electronic Database¹¹⁷. Enabling the electronic submission of tender documentation makes the procurement process itself more sustainable than the previous more paper-intensive (and more time-consuming) processes. It also provides the opportunity for more sophisticated quantitative analysis of green criteria in tenders and contracts, as GPP becomes embedded across all areas of procurement.

Sustainability in IT operations

The Government’s Smarter Travel document shows how the use of IT-based logistics management and traffic management systems can aid sustainability in the transport area. It also refers to the need to encourage e-working, as a means of aligning employment policies with sustainable transport goals.

Generally, tenderers in the ICT area should be required to supply details of the relevant manufacturers’ product design policies relating to energy efficiency, use of environmentally-responsible materials and packaging, e.g. compliance with Energy Star, EPEAT or equivalent, details on power management features, upgradeability of products, and reduction of overall waste and use of resources.

Minimising the amount of energy consumed by the core ICT process correspondingly reduces the energy required to support that process, through cooling, lighting etc. SEAI are currently preparing guidance on how to improve the energy efficiency of data centre/server rooms. Public bodies can employ these techniques to:

- Reduce the electrical power consumption of the server room (reductions in the order of 30% to 50% are feasible)
- Increase the life span of the IT equipment
- Reduce the fault rate which results from too high temperatures

Work practices in the Desktop environment

Recent SEAI studies have highlighted the importance of the work practices, attitudes and behaviour in reducing the operational impacts of ICT equipment, particularly in the desktop environment. For example, PCs left on overnight and at weekends represent a waste of money and resources. This can be greatly mitigated by monitoring and auditing such behaviour, by facilitating a culture of energy conservation, and by enforcing the routine shutting down of equipment that is not in use.

Addressing issues of work practices can lead to substantial quantifiable savings across many areas of public procurement. Simple adjustments to ICT equipment can aid this behavioural shift. For example, as noted in the chapter on paper, setting a printer’s default setting to print double-sided can greatly reduce paper use.

Example: CMOD ICT Frameworks

An objective of the procurement frameworks established by the Centre for Management and Organisation Development (CMOD) of the Department of Public Expenditure and Reform for the supply of certain ICT equipment is to promote more positive environmental outcomes¹¹⁸. Environmental considerations therefore constitute a subset of Award Criteria for this framework, in particular in seeking:

- The reduction or elimination of environmentally hazardous materials
- Design for reuse and recycle
- Energy efficiency
- End of Life Management for reuse and recycle
- Environmental stewardship in the manufacturing process
- Packaging

Accordingly, the details required regarding the standard category product are as follows:

a. Reduction of Energy Consumption

Tenderers are required to indicate whether the proposed standard category product meets the latest Energy Star standards for energy performance¹¹⁹ or their equivalent. The Energy Star label is accepted as proof of compliance, as is reliable technical documentation provided by the supplier indicating that the equivalent criteria have been met.

b. Reduction of Environmental Impacts over whole of product life cycle

Tenderers are required to indicate whether the proposed standard category product is certified through the Electronic Product Environment Assessment Tool (EPEAT) or the EU Ecolabel or equivalent. Bidders must include proof of certification in their bid proposal¹²⁰. The EPEAT Certificate or EU Ecolabel will be accepted as proof of compliance, as will reliable technical documentation provided by the supplier indicating that the equivalent criteria has been met.

c. Power Management Capabilities

Tenderers are required to supply details of power management features that facilitate configuration of energy saving settings of the proposed standard category product.

d. Compliance with WEEE regulations

Tenderers are required to confirm that they are compliant with all WEEE Regulations¹²¹. The production of a “Certificate of Registration” or “Certificate of Renewal of Registration” will be accepted as proof of compliance.

Approximately 10% of total marks are awarded on the basis of social and environmental criteria, in the following way:

Environmental Design & Wider Social and Economic Benefits & Accessibility (100 marks; approx 10%)

14	<p>Environmental Design (see A3.6)</p> <p>Reduction of Energy Consumption – 10 Marks</p> <p>Reduction of Environmental Impact over whole of Product Lifecycle – 10 Marks</p> <p>Power Management Capabilities – 10 Marks</p> <p>Compliance with WEE Regulations – 10 Marks</p>	40
15	<p>Wider Social & Economic Benefits (see A7 and A8)</p> <p>SMEs Involved – 40 Marks</p> <p>Participates in Charity Re-Use/Donation – 5 Marks</p> <p>Donate or Resell to Developing Economies – 5 Marks</p>	50

Example: Department of the Environment, Community and Local Government practice on sustainable ICT

The Department of the Environment, Community and Local Government is committed to ensuring that its ICT operations are environmentally sustainable. All of the Department's main offices are equipped with video and audio conferencing facilities, thereby reducing travel overheads and the Department's carbon footprint.

The Department also aims to achieve sustained reductions in the consumption of power, consumables and paper. To this end, the Department will implement a policy of centralised printing in its Custom House offices by the end of 2012, which will include the replacement of desktop printers. This can supplement new measures for managed print services for the entire public sector, to be introduced by the National Procurement Service.

The Department is also committed to the efficient and effective disposal of computers, servers, and other devices with minimal or no impact on the environment.

Key Actions

The following are the key actions proposed in respect of ICT:

48. All public bodies should seek the most energy efficient solutions when procuring ICT services.
49. All public bodies should consult the Triple E register¹²² when tendering for ICT equipment.
50. All public bodies should procure ICT equipment that meets Energy Star criteria, or equivalent.
51. When tendering for ICT equipment, all public bodies should allocate marks for certification of reduced environmental impacts, such as EPEAT or the EU Ecolabel, or equivalent.
52. All public bodies should maximise the use of eProcurement facilities, in accordance with Department of Finance Circulars 2/09¹²³ and 10/10.

Chapter 14: Next Steps and Follow-up



The monitoring and implementation of Green Tenders will be critical to its integration into public procurement policies and practices across all sectors in Ireland. Its successful implementation will ensure a consistent approach to GPP across the various sectors. While Green Tenders sets out a series of actions under the selected priority areas dealt with in this document, individual sectors are likely to require the development of more detailed implementation plans to meet the requirements of their specific sectors. It is clearly important that a co-ordinated, partnership approach involving the key State actors be intensified to achieve effective implementation of the Plan.

To this end, the Department of the Environment, Community and Local Government in consultation with the National Procurement Service and other key stakeholders will maintain a GPP Action Plan Implementation Group, whose role will be to monitor and oversee the roll out of the Plan and to report on progress on a yearly basis. The Implementation Group's first annual progress report will include a detailed implementation plan for the eight sectors prioritised in this Action Plan, to include a timeline for each of the individual actions. The Implementation Group will also develop arrangements for ongoing consultation with relevant private sector stakeholders as appropriate. The Action Plan itself will be renewed on a five-yearly basis.

Performance Indicators

Green public procurement is an iterative process requiring on-going engagement with stakeholders. The range and relative cost of public procurement is constantly changing. Public procurers should keep themselves informed about changing technologies and processes, so that, where these are cost-effective and fit for purpose, relevant developments and innovations can be included in the procurement process.

There is a need to better establish current Irish performance relative to two GPP indicators, widely used to measure GPP at EU level. These two indicators are: the **value** of public procurement tendering processes/contracts with GPP criteria, relative to the overall value of public procurement contracts, and the **number** of such tendering processes/ contracts relative to the total number. These two indicators are essential in order to monitor, review, evaluate and revise the embedding of GPP in Ireland. They also provide a "baseline scenario" which would also be

useful with respect to identifying existing products and services, evaluating current demand and monitoring this demand over time as actions are implemented.

In the future, evaluation at EU level is likely to include the impact of GPP on greenhouse gas emissions and the impact of GPP on procurement costs, particularly on a life-cycle basis.

Training and education

Green Tenders references examples where good training in GPP is essential to achieve an environmentally-beneficial outcome, such as training drivers to be more fuel-efficient and training cleaning staff about appropriate products and dosages. However, continuous education and training of all key procurement personnel is essential for this Action Plan to achieve its goals and for GPP to achieve its potential. This training effort should especially focus on:

- Policy makers
- Managers
- Legal, financial and procurement officers

It is important to note that sustainable procurement and GPP procurements are increasingly being mainstreamed into a wide range of existing education and training initiatives. For example, Dublin City University offers an MBS in Strategic Procurement which includes sustainable procurement and GPP issues. The Civil Service Training and Development Centre currently deliver training on Strategic Objectives in Public Procurement, which highlights GPP policy objectives. These developments should be facilitated and encouraged as much as possible and progress made should be noted in the reviews of GPP implementation carried out by the GPP Implementation Group.

Future Actions

Future actions should be developed within a qualitative context where possible. While adherence to the EU's GPP processes will be a key part of the further evolution of Ireland's GPP policy, in practice each Member State will continue to "define its own targets in every sector to contribute to the overall 50% target"¹²⁴. Ireland should utilise the flexibility and dynamism inherent in this process, in order both to respect these wider objectives and obligations, while also maximising value for money, innovation potential and market opportunities.

Chapter 14 • Next Steps and Follow-up

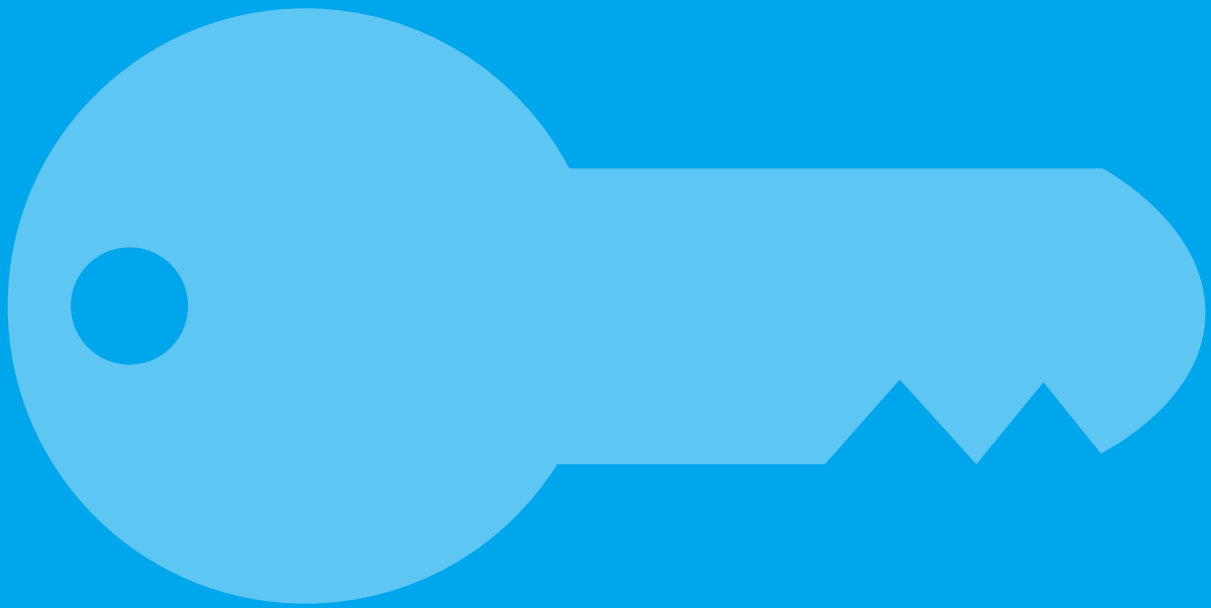
Overarching Key Actions

To ensure that GPP is successfully embedded in public procurement policies and practices across all sectors, the following key actions will be undertaken:

- a. Government Departments and Agencies with a procurement role shall progressively integrate green criteria into public sector tendering processes, as appropriate.
- b. A GPP Action Plan Implementation Group, comprising relevant Government Departments and Agencies, shall be tasked with reviewing implementation of GPP on an annual basis, by reference to existing and future national and EU targets.
- c. The GPP Action Plan Implementation Group's first annual progress report will include a detailed implementation plan for the eight areas prioritised in this Action Plan, to include a timeline for each of the individual actions.
- d. The GPP Action Plan Implementation Group shall draw up terms of reference for further on-going research into GPP methodologies, target-setting and effective implementation, evaluation and monitoring. This research could be carried out by rx3¹²⁵ and resourced out of monies allocated under the Market Development Programme.
- e. The GPP Action Plan Implementation Group's annual review should also report on the level of GPP training for public procurers that has taken place in the year under review.
- f. GPP content and reference to Green Tenders should be integrated into all public procurement-related training provided to public bodies. This should apply irrespective of whether the training intervention is developed and delivered "in-house" or by external providers.
- g. In the case of the eight priority product groups, the Implementation Group's review will be based on available statistics and data for two key indicators – the number of contracts with GPP criteria relative to the overall number of contracts; and the value of such contracts relative to the overall public procurement spend.
- h. Public bodies, when addressing procurement capability in their Corporate Procurement Plans, should indicate a commitment to whole-of-government objectives including GPP.
- i. Corporate Procurement Plans should set out how any GPP skills gap will be identified and dealt with through education, training, awareness raising and/ or dissemination of information. Those bodies with a significant procurement function should include these actions in their Training and Development Strategy/ Plan.
- j. Public bodies should ensure that procurement guidance material made available to staff (whether in hardcopy or electronic format) highlights the need to incorporate GPP criteria where appropriate into the tender and contract documents.
- k. Where applicable and relevant to the subject matter of the contract, public bodies shall clearly specify environmental and energy efficiency criteria, among criteria specified for contracts being awarded on the basis of Most Economically Advantageous Tender.
- l. When procuring hospitality services (e.g. hotels), the Green Hospitality Award scheme should (where possible) be utilised as a selection criteria. This is a voluntary programme that demonstrates leadership in environmental management within the hospitality sector.

Appendices:

List of all Key Actions



Appendix I • List of all Key Actions

Construction sector

The following is a summary of actions proposed for the green procurement of construction products and services.

1. Produce guidelines for public sector construction procurement, including assessment criteria. While taking into account cost efficiency, develop initial evaluation criteria and relative weightings under the six main headings of Design, Ecology and Site Utilities; Energy; Materials; Refurbishment; and Specification.
2. Integrate energy efficiency into construction projects in accordance with the three-part energy efficient procurement programme (described in the chapter on Energy).
3. Develop a target B.E.R. for all new construction projects (c.f. Action 9 of the National Energy Efficiency Action Plan).
4. Public bodies will only purchase (or lease) buildings with a B.E.R. of B3 or higher with effect from 1 January 2011 and A3 or higher from 1 January 2015 in compliance with the European Communities (Energy End-use Efficiency and Energy Services Regulations 2009 (S.I. No. 542 of 2009)).
5. Use innovative procurement initiatives such as Energy Service Company contracting to facilitate the aim of all public sector buildings over 1,000 square metres having their D.E.C. improved to D1 or higher by 2020 as envisaged in the National Energy Efficiency Action Plan 2009-2020.
6. Implement the FLEGT Action Plan in Ireland (by 2011)
7. Establish a system of Due Diligence for operators placing timber products on the market for the first time (commencing 2013)
8. By 2017, it will be mandatory that construction timber will be procured only from verified legally logged sources and from independently verified sustainable sources.
9. Conduct research projects to broaden the criteria for evaluation in the GPP Guidance Document.
10. Ensure continued updating of the guidance document for GPP in the construction sector, to reflect most recent data, research and standards.

11. Develop database of relevant properties and evaluation criteria for the most common building materials and products.
12. Expand database and evaluation criteria to cover all building materials and products
13. Maintain the guidance document to include new materials, standards and evaluation methodologies.
14. Explore the feasibility of developing a national methodology for life cycle analysis and life cycle costing for construction projects.
15. Research long term ambitions for GPP for construction, by means of case study projects at design, occupancy and refurbishment stages.

Energy sector

The following key actions are proposed for the energy sector:

16. All public bodies should use National Procurement Service framework contracts for procuring energy supplies.
17. All public bodies should consider using Energy Performance Contracting or similar models when procuring energy efficiency upgrades, retrofits etc.
18. When procuring equipment or vehicles from relevant product categories, public bodies shall only procure products that are listed on the Triple E register, or which satisfy the published SEAI energy efficiency criteria for the equipment or vehicle concerned. Public bodies shall specify this requirement in all procurement documentation.
19. The Sustainable Energy Authority of Ireland will develop new Triple E categories in line with the objectives of the recast Eco-Design for Energy-Related Products Directive (2009/125/EC).
20. Public bodies procuring capital projects are strongly encouraged to seek advice on energy efficient design at the earliest possible stage in the project's planning.
21. All public bodies are required to integrate Energy Efficient Design into the project design.

Appendix I • List of all Key Actions

22. All public bodies constructing or renovating public buildings after 31 December 2011 may consult, as appropriate, with SEAI for the purposes of ensuring that the buildings fulfil an exemplary role in the context of Directive 2009/28/EC on the promotion of the use of energy from renewable sources, and of the European Communities (Renewable Energy) Regulations 2011.
23. All public bodies are required to procure electric and electronic goods from WEEE Register Society registered producers.

Transport sector

The following are the key actions proposed for green procurement in the transport sector:

24. The requirements of the Clean Vehicles Directive should be adopted by all relevant public bodies and be communicated to all public procurement officials with responsibility for transport.
25. Public bodies should insist on “sulphur free” gas oil when procuring this fuel for use in appropriate vehicles.
26. The Department of Transport’s Common Appraisal Framework for Transport Projects and Programmes should inform all public sector procurement of transport services.
27. Fuel-efficient driving techniques should be included in the training of relevant personnel – bus drivers, members of An Garda Síochána, etc.

Food sector

The following are the key actions proposed for the green procurement of food and catering services:

28. As part of the selection criteria for food and catering services, contractors should be required to prove their technical and professional capacity to perform the environmental aspects of the contract. An environmental management system, e.g. ISO 14001, or equivalent standard, is deemed proof. Verification can also be demonstrated by an environmental policy, documenting work instructions and procedures for carrying out the service in an environmentally friendly manner.

29. Where economically viable, food from the Meat, Poultry, Egg, and Seafood categories will be sourced from accredited schemes which incorporate a significant sustainability element and/or organic schemes.
30. For all other categories (including ones where no accredited national schemes currently exist), the contracting authority should ensure that sustainability and/or organic criteria are clearly identified in their tender documents.
31. When tendering for food procurement, public authorities should allocate some marks for food in season, regional food, organic food and/or artisanal food, depending on market conditions.
32. Public sector contracting authorities should consider the distance that food will travel from point of production to point of use.
33. Tender and contract specifications should require minimisation in the amount of food packaging.
34. Other award criteria for food catering services should include the use of energy efficient equipment to specific standards, and reusable cutlery.
35. Contracting parties should be required to deal with food waste in compliance with the national composting standard (once finalised) and the Food Waste Regulations (SI 508 of 2009).

Cleaning products and services

The following key actions are proposed for cleaning products and services:

36. The central janitorial contract currently provides for the purchase of approximately 30% of products with environmental credentials. All similar future centralised procurement contracts should move progressively towards a minimum target of 50% of products with green/environmental credentials.
37. All Government Departments and Agencies with a procurement role should examine the current examples of best practice in this category of purchasing and where practicable integrate them into their procurement processes to ensure an increased use of products and services with green/environmental credentials.

Appendix I • List of all Key Actions

38. All public bodies procuring cleaning services should ensure adequate provision in the contract for the training of staff deployed to service the contract.
39. On achieving the target of 50% a review of the market should be conducted to establish, where possible, a series of additional milestones to increase substantially the use of environmentally friendly solutions.

Paper

The following are the key actions proposed for paper:

40. The National Procurement Service's central paper contract allows for the purchase of approximately 95% of recycled paper. This level should be maintained.
41. All public bodies who procure their own supplies of paper should move progressively towards the green standards established by the National Procurement Service. Where they cannot achieve this target in 2012 they should seek to be included as part of the next central contract.
42. All public bodies should have a policy of minimising paper usage, including duplex printing as a default setting, circulation of electronic documents, printing documents only when essential etc.

Uniforms and other textiles

The following are the key actions proposed for uniforms and other textiles:

43. All public bodies involved with the procurement of textiles, garments and uniforms should familiarise themselves with the guidance provided by the European Commission on the European Ecolabel.
44. All public bodies involved with the procurement of textiles, garments and uniforms should maximise the use of recycled, recyclable or organically produced materials.

45. Public bodies involved with the procurement of textiles, garments and uniforms need to be particularly mindful of the social dimension of sustainable procurement. They should refer to the National Procurement Service guidelines on ethical working standards and (especially for goods sourced abroad) to the European Commission's guide to socially-responsible public procurement, Buying Social, and to the ISO's social responsibility standard, ISO 26000.

46. The National Procurement Service should continue its work towards minimising any adverse environmental impact resulting from the purchase of clothing and uniforms.

47. All public bodies should seek to minimise the packaging associated with the purchase of uniforms and textiles.

ICT

The following are the key actions proposed in respect of ICT:

48. All public bodies should seek the most energy efficient solutions when procuring ICT services.
49. All public bodies should consult the Triple E register¹²⁶ when tendering for ICT equipment.
50. All public bodies should procure ICT equipment that meets Energy Star criteria, or equivalent.
51. When tendering for ICT equipment, all public bodies should allocate marks for certification of reduced environmental impacts, such as EPEAT or the EU Ecolabel, or equivalent.
52. All public bodies should maximise the use of eProcurement facilitates, in accordance with Department of Finance Circulars 2/09¹²⁷ and 10/10.

Appendix II • Overarching Key Actions

Overarching Key Actions

To ensure that GPP is successfully embedded in public procurement policies and practices across all sectors, the following key actions will be undertaken:

- a. Government Departments and Agencies with a procurement role shall progressively integrate green criteria into public sector tendering processes, as appropriate.
- b. A GPP Action Plan Implementation Group, comprising relevant Government Departments and Agencies, shall be tasked with reviewing implementation of GPP on an annual basis, by reference to existing and future national and EU targets.
- c. The GPP Action Plan Implementation Group's first annual progress report will include a detailed implementation plan for the eight areas prioritised in this Action Plan, to include a timeline for each of the individual actions.
- d. The GPP Action Plan Implementation Group shall draw up terms of reference for further on-going research into GPP methodologies, target-setting and effective implementation, evaluation and monitoring. This research could be carried out by rx3 and resourced out of monies allocated under the Market Development Programme.
- e. The GPP Action Plan Implementation Group's annual review should also report on the level of GPP training for public procurers that has taken place in the year under review.
- f. GPP content and reference to the Action Plan on Green Public Procurement should be integrated into all public procurement-related training provided to public bodies. This should apply irrespective of whether the training intervention is developed and delivered "in-house" or by external providers.
- g. In the case of the eight priority product groups, the Implementation Group's review will be based on available statistics and data for two key indicators – the number of contracts with GPP criteria relative to the overall number of contracts; and the value of such contracts relative to the overall public procurement spend.
- h. Public bodies, when addressing procurement capability in their Corporate Procurement Plans, should indicate a commitment to whole-of-government objectives including GPP.
- i. Corporate Procurement Plans should set out how any GPP skills gap will be identified and dealt with through education, training, awareness raising and/or dissemination of information. Those bodies with a significant procurement function should include these actions in their Training and Development Strategy/ Plan.
- j. Public bodies should ensure that procurement guidance material made available to staff (whether in hardcopy or electronic format) highlights the need to incorporate GPP criteria where appropriate into the tender and contract documents.
- k. Where applicable and relevant to the subject matter of the contract, public bodies shall clearly specify environmental and energy efficiency criteria, among criteria specified for contracts being awarded on the basis of Most Economically Advantageous Tender.
- l. When procuring hospitality services (e.g. hotels), the Green Hospitality Award scheme should (where possible) be utilised as a selection criteria. This is a voluntary programme that demonstrates leadership in environmental management within the hospitality sector.

Endnotes

- 1 The Programme for Government 2011 is available at the following link: http://www.taoiseach.gov.ie/eng/Publications/Publications_2011/Programme_for_Government_2011.pdf
- 2 The National Reform Programme is available at the following link: http://www.taoiseach.gov.ie/eng/Department_of_the_Taoiseach/Policy_Sections/Economic_and_Social_Policy/Economic_Policy/National_Reform_Programme/
- 3 Treaty on the Functioning of the European Union, Article 11
- 4 See http://ec.europa.eu/europe2020/index_en.htm
- 5 See <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1807>
- 6 “Procurement” is a broader term than the actual purchase itself. It is the process of acquiring goods, services and works, spanning the planning of what is needed, through to the end of a services contract or the end of the useful life of an asset. It also must take account of how the goods are originally sourced and what will happen at the disposal phase. “Public procurement” is defined as “the acquisition, whether under formal contract or otherwise, of works, supplies and services by public bodies. It ranges from the purchase of routine supplies or services to formal tendering and placing contracts for large infrastructural projects by a wide and diverse range of contracting authorities.”
- 7 Definition cited in PWC study Collection of statistical data on Green Public Procurement in the EU (2009): http://ec.europa.eu/environment/gpp/pdf/statistical_information.pdf
- 8 This definition of Sustainable Public Procurement was used by the International Institute for Sustainable Development Task Force (2007)
- 9 Buying Social – A Guide to taking account of Social Considerations in Public Procurement (European Commission, 2011) More information is available at the following link: <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=978&furtherNews=yes>
- 10 The ISO’s social responsibility standard is a reference document providing guidance on how to integrate social responsibility into an organisation’s values and practices and is not intended to involve certification. More information is available from the NSAI standards catalogue, available at the following links: <http://www.nsa.ie/> and <http://www.standards.ie/>
- 11 Directive 2004/17/EC of the European Parliament and of the Council, coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:134:0001:0113:en:PDF>
- 12 Directive 2004/18/EC of the European Parliament and of the Council on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0018:EN:HTML>
- 13 These seven principles are freedom of movement of goods; freedom to provide services; equal treatment; non-discrimination; mutual recognition; proportionality; and transparency
- 14 Directive 2004/18/EC, recital 5
- 15 More information on the SCP/SIP Action Plan is available at the following link: http://ec.europa.eu/environment/eusd/escp_en.htm
- 16 More information on the Thematic Strategy on the Prevention and Recycling of Waste is available at the following link: <http://ec.europa.eu/environment/waste/strategy.htm>
- 17 More information on the Thematic Strategy on the Sustainable Use of Natural Resources is available at the following link: <http://ec.europa.eu/environment/natres/index.htm>
- 18 Directive 2009/125/EC, available at the following link: http://ec.europa.eu/enterprise/policies/sustainable-business/documents/eco-design/legislation/framework-directive/index_en.htm
- 19 More information on the EU’s environmental technology verification processes is available at the following link: <http://ec.europa.eu/environment/etv/index.htm>
- 20 More information on the EU Ecolabel is available at the following link: http://ec.europa.eu/environment/gpp/pdf/toolkit/module1_factsheet_ecolabels.pdf
- 21 EMAS (Eco-Management and Audit Scheme) is an environmental management system backed by an EU Regulation: http://ec.europa.eu/environment/emas/index_en.htm
- 22 The Waste Framework Directive, 2008/98/EC, available at the following link: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:312:0003:0030:EN:PDF>
- 23 The renewed EU Sustainable Development Strategy (June 2006) available at the following link: <http://register.consilium.europa.eu/pdf/en/06/st10/st10917.en06.pdf>
- 24 Communication on Public Procurement for a Better Environment (July 2008), available at the following link: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0400:FIN:EN:PDF>
- 25 EU Council of Ministers Conclusions (September 2008) on the Communication on Public Procurement for a Better Environment, available at the following link: <http://register.consilium.europa.eu/pdf/en/08/st13/st13067.en08.pdf>
- 26 This guidance is available at the following link: http://ec.europa.eu/environment/gpp/index_en.htm
- 27 The Department of Finance’s ‘Proposed Working Rules for Cost Benefit Analysis’ (June 1999) states that: “The appraisal timeframe should be the estimated economically useful life of the project. Productive sector projects should generally be appraised over a 10 year period. Infrastructure projects should generally be appraised over a 20 year period. Residual values and/

Endnotes

- or decommissioning costs at the end of the project's useful life should be included in the analysis".
- 28 In the ISO 14040 series – see http://www.iso.org/iso/catalogue_detail?csnumber=37456
- 29 The European Commission suggests a range of values by which these environmental impacts can be monetised, for example in its discussion of Life Cycle Costing on its GPP webpages: http://ec.europa.eu/environment/gpp/faq_en.htm#cost1
- 30 As is stated in the Commission's remarks on Life Cycle Costing: http://ec.europa.eu/environment/gpp/faq_en.htm#cost1
- 31 See http://www.iso.org/iso/catalogue_detail?csnumber=31807
- 32 More information on how energy management systems can be used by public bodies is available at the following link: http://www.seai.ie/Your_Business/Large_Energy_Users/Energy_Management_Standard/
- 33 See http://ec.europa.eu/environment/gpp/pdf/toolkit/module1_factsheet ecolabels.pdf
- 34 More information on the EU Ecolabel is available at the following link: http://ec.europa.eu/environment/ecolabel/about_ecolabel/what_is_ecolabel_en.htm
- 35 Directive 2004/17/EC of the European Parliament and of the Council, coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:134:0001:0113:en:PDF>
- 36 Directive 2004/18/EC of the European Parliament and of the Council on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0018:EN:HTML>
- 37 EC (Award of Contracts by Utility Undertakings) Regulations 2007 (S.I. 50 of 2007): <http://www.irishstatutebook.ie/2007/en/si/0050.html>
- 38 EC (Award of Public Authorities Contracts) Regulations 2006 (S.I. 329 of 2006): <http://www.irishstatutebook.ie/2006/en/si/0329.html>
- 39 "Criteria may include... price, technical merit, aesthetic and functional characteristics, environmental characteristics, running costs, cost effectiveness, after sales service and technical assistance, and delivery date or period of completion" (S.I. 329 of 2006, regulation 66)
- 40 S.I. 329 of 2006, regulation 23
- 41 S.I. 329 of 2006, regulation 64
- 42 S.I. 542 of 2009, transposing Directive 2006/32/EC on Energy End Use Efficiency and Energy Services ('Energy Services Directive' or ESD) into Irish legislation.
- 43 Section 11 (i) "Public bodies shall fulfil an exemplary role with regard to energy efficiency, with the aim of achieving the [established] energy efficiency targets"
- 44 European Union (Energy Efficient Energy Procurement) Regulations 2011 (S.I. 151 of 2011), available at the following link: <http://www.attorneygeneral.ie/esi/2011/B28347.pdf>
- 45 "Triple E" refers to Excellence in Energy Efficiency. The Triple E Register is maintained by the Sustainable Energy Authority of Ireland and is available at the following link: www.seai.ie/tripleE
- 46 Waste Management (Packaging) Regulations 2007 (S.I. 798 of 2007), available at the following link: <http://www.irishstatutebook.ie/2007/en/si/0798.html>
- 47 Producers registered by the WEEE Register Society are listed at the following link: <http://www.weeeregister.ie/searchproducers.html>
- 48 Limitation of Emissions of Volatile Organic Compounds due to the Use of Organic Solvents in Certain Paints, Varnishes and Vehicle Refinishing Products Regulations 2007: <http://www.irishstatutebook.ie/2007/en/si/0199.html>
- 49 Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:120:0005:0012:en:pdf>
- 50 See the Department of Finance's 'Proposed Working Rules for Cost Benefit Analysis' (June 1999)
- 51 And each subsequent year (after 2015) of the CBA
- 52 Delivering Change: Preventing and Recycling Waste – a policy statement (Department of the Environment, 2002), available at the following link: http://www.epa.ie/downloads/pubs/waste/plans/EPA_delivering_change_2002.pdf
- 53 The waste hierarchy was given statutory authority in the new Waste Framework Directive (2008/98/EC), transposed into Irish law by the EC Waste Directive Regulations 2011.
- 54 In accordance with the landfill directive 1999/31/EC, available at the following link: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1999:182:0001:0019:EN:PDF>
- 55 rx3 is the new name for the Market Development Programme and refers to the "rethink, recycle, remake" mantra
- 56 More information on the Green Hospitality Award is available at the following link: <http://www.ghaward.ie/>
- 57 For example, the National Hazardous Waste Management Plan recommends the provision of "guidelines for the substitution or reduction in use of hazardous materials in public procurement"
- 58 Ireland's National Energy Efficiency Action Plan proposes a national target of 20% energy saving by 2020, and a 33% target for the public sector.
- 59 The National Climate Change Strategy 2007 – 2012 commits Ireland to a "pro rata" share of the EU's target of 20% reduction in greenhouse gas emissions by 2020 (using a baseline of 1990). Ireland's more immediate target under the Kyoto Protocol is to limit our emissions to 13% above the 1990 baseline by 2012: <http://www.environ.ie/en/Publications/Environment/Atmosphere/FileDownload,1861,en.pdf>

Endnotes

- 60 For example, SI 9 of 2010, giving effect in Ireland to measures of the EU's Water Framework Directive of 2000 and Groundwater Directive of 2006, prohibits public authorities from undertaking their functions "in a manner that knowingly causes or allows deterioration in the quantitative status or chemical status of a body of groundwater" (Section 5). Also, under Section 31 (15) of the Water Services Act 2007, the Minister for the Environment "may make regulations to provide for –
- (a) criteria, procedures and standards, including standards in relation to economy, effectiveness and efficiency in the provision of water services,
 - (b) environmental protection and environmentally sustainable practices in relation to the provision of water services, and
 - (c) the avoidance of risk to public health, in relation to the operation, management and supervision of water services by water services authorities".
- 61 For example, Section 6 of the Waste Management Act 1996 obliges each local authority to draw up a waste management plan, the objectives of which include: to prevent or minimise the production or harmful nature of waste; to encourage and support the recovery of waste; and to ensure that such waste as cannot be prevented or recovered is disposed of without causing environmental pollution.
- 62 Source: Department of Finance
- 63 Expenditure of this €6 billion took place mainly under the Capital Works Management Framework
- 64 This figure includes expenditure relating to drugs and medicines and GP and pharmacist fees.
- 65 Government Departments and Agencies, including the Defence Forces and An Garda Síochána
- 66 Costs and Benefits of Green Public Procurement in Europe (2007) See http://ec.europa.eu/environment/gpp/pdf/eu_recommendations_3.pdf
- 67 Buying Innovation – the 10-Step Guide to Smart Procurement and SME Access to Public Contracts (DJEI, 2009). The report is available at the following link: <http://www.djei.ie/publications/trade/2009/buyinginnovation.pdf>
- 68 More information on Enterprise Ireland's environmental initiatives is available at the following link: <http://www.envirocentre.ie/>
- 69 More information on South Tipperary County Council's EMAS certification is available at the following link: <http://www.southtippcoco.ie/newenvironmenthome/en/environmentalpolicy/>
- 70 More information on Waterford County Council's EMAS certification is available at the following link: <http://www.waterfordcoco.ie/services/environment/emas/>
- 71 http://ec.europa.eu/environment/gpp/training_toolkit_en.htm
- 72 Smarter Travel: A Sustainable Transport Future – A new Transport Policy for Ireland 2009 – 2020, available at the following link: http://www.smartertravel.ie/download/1/NS1264_Smarter_Travel_english_PN_WEB.pdf
- 73 The Government Policy on Architecture 2009-2015 is available at the following link: <http://www.environ.ie/en/Publications/Heritage/ArchitecturalPolicyPublications/>
- 74 Guidelines for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector (Department of Finance, 2005), available at the following link: <http://www.finance.gov.ie/documents/publications/other/capappguide05.pdf>
- 75 Proposed Working Rules for Cost Benefit Analysis (Department of Finance, 1999), available at the following link: <http://www.ndp.ie/viewdoc.asp?mn=pubq&nID=5&fn=/documents/publications/evaluation/Workingrules-cost-benefit-analysis.doc&UserLang=EN&css=1>
- 76 Additional information is available at the following link: http://www.seai.ie/Your_Building/BER/Large_Public_Buildings/
- 77 S.I. 147 of 2011 – European Communities (Renewable Energy) Regulations 2011, available at the following link: <http://www.irishstatutebook.ie/2011/en/si/0147.html>
- 78 Statutory responsibility for which has now been transferred to the Department of Arts, Heritage and the Gaeltacht
- 79 Advice Series: Energy Efficiency in Traditional Buildings, ISBN 978-1-4064-24447 <http://www.ahg.gov.ie/en/Publications/HeritagePublications/BuiltHeritagePolicyPublications/>
- 80 Source: UN REDD Programme. More information is available at the following link <http://www.un-redd.org/>
- 81 More information is available at the following link <http://www.un-redd.org/>
- 82 More information on the FLEGT process is available at the following link <http://ec.europa.eu/environment/forests/flegt.htm>
- 83 See EU Regulation 995/ 2010 ("the Timber Traders Regulation") http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnumdoc&lg=EN&numdoc=32010R0995
- 84 More information on the Forest Stewardship Council is available at the following link: <http://www.fsc.org>
- 85 See <http://www.pefc.org>
- 86 These targets are stated in Maximising Ireland's Energy Efficiency – the National Energy Efficiency Action Plan 2009-2020, available at the following link: http://www.dcenr.gov.ie/NR/rdonlyres/FC3D76AF-7FF1-483F-81CD-52DCB0C73097/0/NEEAP_full_launch_report.pdf
- 87 The Triple E Register is available at the following link: <http://www.seai.ie/business>
- 88 Actual savings vary from product category to product category and from product to product. Savings are also dependent on the specific application.
- 89 Additional information is available at the following link: <http://www.opw.ie/en/OurBusinessUnits/NationalProcurementService/ProcurementServices/Energy/>

- 90 Additional information on EED methodology is available at www.seai.ie
- 91 Producers registered by the WEEE Register Society are listed at the following link: <http://www.weeeregister.ie/searchproducers.html>
- 92 Details of the National Transport Authority's car-sharing initiative is available at the following link: <http://carsharing.ie/>
- 93 Smarter Travel: A Sustainable Transport Future – A new Transport Policy for Ireland 2009 – 2020, available at the following link: http://www.smartertravel.ie/download/1/NS1264_Smarter_Travel_english_PN_WEB.pdf
- 94 Costs and Benefits of Green Public Procurement in Europe (2007) See http://ec.europa.eu/environment/gpp/pdf/eu_recommendations_3.pdf
- 95 For example, vehicle suppliers to Bus Éireann quote premiums of up to 7.5% for vehicles meeting the EuroVI standard, due to development costs etc. Even with Hybrid technology, premiums on vehicles over EuroV standard (and sometimes over EuroIV standard) means that it is not commercially viable for Bus Éireann to purchase these vehicles.
- 96 S.I. 155 of 2011, available at the following link: <http://www.attorneygeneral.ie/esi/2011/B28384.pdf>
- 97 Limitation of Emissions of Volatile Organic Compounds due to the Use of Organic Solvents in Certain Paints, Varnishes and Vehicle Refinishing Products Regulations 2007. See <http://www.irishstatutebook.ie/2007/en/si/0199.html>
- 98 More information on the Smart Garage Guide is available at the following link: <http://www.epa.ie/downloads/pubs/waste/wastepreventionprojectoutputs/Smart%20Garage%20Guide%202010%20small.pdf>
- 99 Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles. See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:120:0005:0012:en:pdf>
- 100 Report on Biogas Energy in Ireland – Seventh Report of the Joint Oireachtas Committee on Climate Change and Energy Security (January 2011) http://www.oireachtas.ie/documents/committees30thdail/j-climate_change/reports_2009/20110126.1.doc
- 101 Drive for Zero: Electric Vehicles are a Winning Proposition – Report of the Joint Committee on Climate Change and Energy Security (April 2009) http://www.oireachtas.ie/documents/committees30thdail/j-climate_change/reports_2008/20090428.pdf
- 102 A recent example is the recommendation from the Food Safety Authority of Ireland that all raw chicken products be packaged in deep plastic trays, to prevent possible contamination of other products caused by drip both in the shopping basket and in the home.
- 103 In the European Commission's GPP toolkit product sheet for food and catering services. http://ec.europa.eu/environment/gpp/pdf/toolkit/food_GPP_product_sheet.pdf
- 104 Food Harvest 2020 – A Vision for Irish Agri-food and Fisheries (Department of Agriculture, Marine and Food, 2010) <http://www.agriculture.gov.ie/media/migration/agri-foodindustry/agri-foodindustrypublications/2020Foodharvest190710.pdf>
- 105 In its procurement strategy, Lancashire County Council states that it “recognises the value of sourcing local eco-friendly produce” and that they are “fully committed to harnessing their collective buying power to influence others to do the same” – while at the same time ensuring compliance with procurement legislation.
- 106 The European Commission's GPP toolkit product sheet for food and catering services specifies the procurement of seasonal produce that is grown “in the region where the procurement is carried out”. http://ec.europa.eu/environment/gpp/pdf/toolkit/food_GPP_product_sheet.pdf
- 107 Certification bodies include the Irish Organic Farmers and Growers Association, Organic Trust Ltd, Demeter UK, the Global Trust Certification, and the Institute for Marketecology. All produce that meets these standards are recognised as “organic” both nationally and in the EU.
- 108 Information on EU legislation on detergents is available at the following link: <http://ec.europa.eu/enterprise/sectors/chemicals/documents/specific-chemicals/detergents/>
- 109 Further information on how to reduce office paper consumption is available at the following link: http://www.managewaste.ie/e_guides/i_eguide_to_reducing_paper_consump.asp
- 110 http://ec.europa.eu/environment/gpp/pdf/toolkit/textiles_GPP_product_sheet.pdf
- 111 As defined by Regulation 2007/834/EC <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF>
- 112 Buying Social – A Guide to taking account of Social Considerations in Public Procurement (European Commission, 2011) More information is available at the following link <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=978&furtherNews=yes>
- 113 Council Directive 1999/13/EC on the limitation of the emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations – available at the following link: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0013:en:NOT>
- 114 Council Conclusions on Post i-2010 Strategy – towards and open, green and competitive knowledge society, available at the following link: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/trans/111999.pdf
- 115 The etenders website is available at the following link: <http://www.etenders.gov.ie/>
- 116 There are currently 33 local authorities participating in LAQuotes, which is at the following link: <http://www.laquotes.ie>
- 117 The EU's Tenders Electronic Daily database is the online version of the Supplement to the Official Journal of the European Union. The TED database is available at the following link: <http://ted.europa.eu/TED/main/HomePage.do>

-
- 118 More information on CMOD's frameworks for the procurement of ICT equipment is available at the following link: <http://ictprocurement.gov.ie/>
- 119 Available at the following link:
<http://www.eu-energystar.org/>
- 120 Program information, registry and certification details are available at the following links:
<http://www.epeat.net>
http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/personal_computers_en.htm
- 121 Available at the following link:
<http://www.epa.ie/whatwedo/enforce/weee/>
- 122 In accordance with S.I. 151 of 2011
- 123 This circular is available at the following link:
<http://www.procurement.ie/sites/default/files/Circular-02-2009-Arrangements-for-ICT-Expenditure.pdf>
- 124 EU Council of Ministers Conclusions (September 2008) on the Communication on Public Procurement for a Better Environment
- 125 rx3 is the new name for the Market Development Programme and refers to the "rethink, recycle, remake" mantra
- 126 In accordance with S.I. 151 of 2011
- 127 This circular is available at the following link:
<http://www.procurement.ie/sites/default/files/Circular-02-2009-Arrangements-for-ICT-Expenditure.pdf>

