



NETWORKING FOR THE FUTURE

# GREEN PROCUREMENT MANUAL





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# Green Procurement Manual

## 1. What is Green Procurement?

Green procurement is the purchasing of supplies and services that have a smaller negative impact, or even a positive impact, on the environment and human health when compared with competing products or services that serve the same purpose.

*Environment + Price + Performance = Green Purchasing.*

To determine whether a product or service is “green,” one needs to consider the environmental impact throughout its life cycle – beginning from the extraction of raw materials to manufacturing of the product, packaging, distribution, re-use and disposal.

Cost also needs consideration, but lifetime costs, rather than up-front capital costs (i.e. initial purchase price) - which ignore usage costs associated with electricity and water consumption, maintenance expenses and disposal costs at the end of the product’s life - should determine purchasing policies. An example is energy efficient light bulbs/lamps, which cost more to buy than inefficient incandescent light bulbs, but cost less in the long run due to the electricity saved during their lifetime and last ten times longer.

Green Procurement may initially appear to compete with developmental priorities and financial prudence (e.g. the least-cost approach set out by the Municipal Financial Management Act). Fortunately, development, financial prudence and green procurement complement each other more often than not. A municipality can meet its “green” goals, while still addressing developmental concerns and savings costs.

The concept of looking at the entire life-cycle of a product or service is particularly important. In the case of goods, this will normally involve the production process and well as the use period and end-of-life disposal. For services it will involve the systems and materials used to provide the services - for example cleaning or catering. While the range of environmental impacts addressed by GPP is very wide, some examples are shown below.

Table 1: Environmental impacts of certain public contracts

Type of Public Contract	Environmental Impacts addressed by GPP
IT equipment (computers, printers, servers)	Energy consumption, use of hazardous substances, recyclability of parts, ability to upgrade components, take-back schemes.
Vehicles and Transport	Emissions of greenhouse gases and particulate matter (PM), fuel consumption, noise and use of raw materials.



Construction	Energy and water consumption, materials used, waste from the construction process, air quality, noise and traffic.
Food and catering services	Sustainable use of land and water, use of pesticides and fertilizers, food waste, packaging.

## 2. Why Green Procurement?

There are many compelling reasons to make the shift to green procurement. Here are a few which can be used in any document that seeks to motivate the adoption of a green (or resource efficient) procurement programme:

1. The resource-efficient purchasing option (energy, water and resource efficient products and services) is often the financially efficient (money-saving) option, especially if the “life-cycle cost” of the product or service is considered, i.e. the total purchase and running costs. The procurement of environmentally preferable products can reduce waste management fees, and reduce spending on pollution prevention.
2. Even when the cost of a green product or service is not the best for the municipality, it is often the best for the community. This can be measured by taking into account all the ‘external costs,’ which include the human and monetary cost of sourcing raw materials, manufacturing, packaging, distribution and disposal. In the case of local government, this can be a very compelling reason for “buying green.”
3. Green procurement seeks to reduce resource usage. In a world with diminishing resources per capita, this is an important consideration.
4. International or national action to mitigate climate change may impose regulatory penalties for inefficient resource use, e.g. carbon tax. The foresight of switching to green procurement now will be a financial boon to municipality in future. Staying ahead of legislation is likely to be more resourceful than having to quickly respond once it is in place.
5. Resource-efficient procurement often supports local and smaller suppliers, because it implies the purchase of local products that do not incur high transport (fuel) use. Local suppliers can also be monitored more easily for good resource efficient and human labour manufacturing practice. Local purchasing will lead to significant job creation and the improvement in the wellbeing of local communities.
6. Insisting on green services and supplies is likely to lead to increased competition and drive innovation amongst suppliers, which will speed up the general transition to a more sustainable business environment in the municipal area. There is an increasing trend where cities use a “green” business environment as a marketing tool. Engaging with regular local suppliers to



encourage environmentally innovative approaches, and providing potential markets for such products, can support these suppliers in giving them a competitive advantage nationally and internationally.

7. Revisiting the current procurement practice can unearth better purchasing choices. For instance, motivating a supplier to adopt more resource efficient practices themselves or getting council employees to start thinking “green” in their own behaviour.  
Green procurement is a very effective way to demonstrate a municipality’s commitment to sustainability as a whole.

### 3. Benefits of Green Procurement

If we in the public sector were better at buying green, we could solve several problems at once. We would be improving the climate and environment at the same time as creating growth and jobs at enterprises which develop green technology. In other words, green procurement is one of the keys to transforming the world to a green economy

#### Environmental:

- Allows public authorities to achieve environmental targets
- Raises awareness of environmental issues
- Reduce greenhouse gas emissions; purchase low carbon products
- Save energy and water; purchase energy/water saving products
- Reduce waste; purchase products with recycled content
- Improve indoor air quality; purchase non-toxic products

#### For Local Community and Economies:

- Provides incentives for industry to innovate
- Promotes green products and environmental technologies
- Saves money when the lifecycle cost of products is considered
- Develop and support markets; for local green suppliers
- Contribute to green jobs by supporting sustainable industries
- Support local communities; groups, schools and businesses that are buying green products.
- Improve quality of life both directly and indirectly.
- Helps establish high environmental performance standards for products and services

#### Political and for Organization:

- It is an effective way to demonstrate a public authority’s commitment to environmental protection and sustainable consumption and production
- Demonstrate leadership; ‘walk the talk’ on sustainability



- Meet expectations of staff, community & suppliers; for improved environmental performance
- Reduce costs and improve efficiency; on energy, water and waste

## 4. Where to Begin?

In order to prioritize products and services for GPP, consideration should be given to:

- The volume of purchasing (value and number of public contracts);
- Environmental impacts and legal commitments, e.g. to reduce greenhouse gas emissions;
- Market capacity and costs to deliver environmentally preferable goods and services; and
- The existence of criteria and other tools for GPP.

Table 2: GPP Criteria examples

Product/Service Category	GPP Criteria - Examples
IT equipment (computers, printers, servers)	<ul style="list-style-type: none"> <li>• Products must carry the EnergyStar label or equivalent</li> <li>• Standby settings must minimize energy consumption</li> <li>• Parts should be recyclable and take-back schemes available</li> <li>• Double-sided printing as the default setting</li> </ul>
Office Furniture	<ul style="list-style-type: none"> <li>• Wood products to be certified as sustainable with FSC, PEFC or equivalent label</li> <li>• Limit organic solvent content and VOC emissions in products, adhesives and surface treatment substances</li> <li>• Encourage use of recycled materials in furniture and packaging</li> <li>• Environmental management system (ISO 14001 or EMAS for production)</li> </ul>
Paper	<ul style="list-style-type: none"> <li>• Procurement of recycled paper from post-consumer recycled fibres</li> <li>• Paper to be certified with a relevant eco-label</li> <li>• Avoidance of bleaches and harmful chemicals</li> </ul>
Vehicles and Transport	<ul style="list-style-type: none"> <li>• Maximum CO2 emissions per kilometre specified</li> <li>• Vehicles to meet current EURO norms for exhaust emissions</li> <li>• Alternative fuelled vehicles (natural gas, electric, biofuels) to be considered as a variant</li> <li>• Maximum fuel consumption per kilometre specified</li> </ul>

## 5. Economic Context

GPP does not necessarily mean spending more on procurement. In some cases, green goods and services will cost less overall, particularly if they save energy or are more durable. One way of determining whether this is true is by applying life-cycle costing (LCC) - a technique which is discussed in Guidelines published by the Project in 2016<sup>7</sup>. In some cases the savings from GPP can be large. For example, the City of Vienna



saved €44.4 million and over 100,000 tonnes of CO<sub>2</sub> between 2004 and 2007 through its “Eco-Buy Programme”.

In other cases, there may be a cost premium associated with GPP, in which case the contracting authority must weigh this against the environmental or other benefits associated with greener products. Market research carried out in advance of tendering can help to determine both the availability and cost of green products in the relevant sector.

## 6. Networks and Resources Supporting GPP

Over the past 20 years, a large number of projects and networks have been developed to support GPP. These are often lead by local authorities or NGOs, and also involve environmental agencies, central purchasing bodies and other stakeholders. The networks play a key role in supporting public authorities to develop and apply a strategy for GPP, for example by:

- Helping to secure project funding;
- Providing expert advice and training on GPP;
- Developing guidance, case studies and criteria;
- Measuring the impact of GPP; and
- Promoting exchange between public authorities.

Because GPP forces public authorities to think about the bigger impact of their purchases, it can also help to trigger more responsible and efficient purchasing. However, as it can add to the complexity of tendering, it is important that professional training on procurement includes GPP as a topic. These Guidelines identify simple steps which can be taken and provide recommendations for the further professionalization of GPP in Ukraine. They should be read together with the Green Procurement Manual which provides more detail on GPP criteria and practical examples of their use.

## 7. Key Criteria for Environmentally Friendly/Alternative Green Products are:

- Bio-based, Biodegradable, Compostable, (Rapidly) renewable materials, Recyclable, Recycled content, Reduced packaging
- Carcinogen-free, Chlorofluorocarbon (CFC)-free, Lead-free, Less hazardous, Low volatile organic compound (VOC) content, Low toxicity, Mercury-free, Persistent bio-accumulative (PBT) toxics free
- Durable, Energy efficient, locally managed, reduced greenhouse gas emissions, Refurbished, Resource efficient, Upgradeable, Water efficient (CSA, 2010).



## 8. How to Identify Green Goods and Services?

Deciding on a 'green' alternative to an existing product or service is complex. One has to look at a host of factors to determine impact on the environment, including:

- Raw materials acquisition,
- Manufacturing,
- Packaging,
- Distribution,
- Re-use and disposal

Luckily the resources to help municipalities identify green alternatives are out there and becoming more numerous. There are governmental and private bodies that evaluate these various elements providing consolidated answers which could relieve municipalities the chore of doing this by their own means. Some of these sources are listed at the end of this article.

## 9. Is Green the Only Criteria or is it One of Many?

Given that a municipality can measure the "greenness" of the product or service it is intending to procure, does it now suddenly make "greenness" the single determining factor as to which alternative it procures? Of course not, all the traditional factors such as price, performance, availability, safety and service must be part of the equation. But what shouldn't happen is that "greenness" gets added on as an afterthought at the end of the list of all the other factors.

What needs to happen is that whatever the current formula is for weighting the different factors, this must be adjusted to also now include "greenness". That is a major strategic decision which needs wide discussion, not only within the procurement division, but throughout the institution. What is likely to happen through this conversation is that the institution itself will need to indulge in introspection as to just how committed it is to a sustainable environment, how resource efficient its own services and products are, and to what extent it is prepared to alter its traditional yardsticks to move towards the sort of organization it wants to be.

## 10. How Does a Municipality Implement Green Procurement?

Now that we have a good idea of what we are trying to achieve by introducing a Green Procurement Policy (GPP) and set of procedures, how does a municipality go about it? In all that follows, the key factor that will influence success or failure in the integration of GPP with the existing procurement framework is "buy-in".

One needs buy-in and understanding, particularly from politicians (political mandate) and top management (financial officers and supply chain management), from procurement personnel, from



suppliers, from the internal customers who use central procurement, from those responsible for decentralized procurement, from marketing and public relations and probably a few more besides.

Thorough implementation of green procurement principles is dependent on all personnel within an organization understanding and practicing the principles of green procurement. There will be opposition, change always generates that, so be on the look-out for it and try to be pro-active so as to limit its impact.

### STEP 1: Form a Green Procurement Team

First, identify staff/departmental champions that will make up the implementation team and drive the process within various departments. Ensure that the team is adequately trained for the job. Staff would need to have a thorough understanding of resource efficient procurement principles, including understanding why what they are doing is important and their responsibility to create the change that is needed.

### STEP 2: Decide on an Implementation Approach

A decision must be taken as to whether to take a “big-bang” approach or to identify some pilot projects that are likely to succeed. The latter is the recommended approach, although your particular situation might require the former. GPP is likely to be successful in most situations if gradually phased in, rather than implemented overnight. Characteristics of successful pilots include products or services where:

- A large amount of information is available on how to measure the “greenness” of the product
- There are existing suppliers who are promoting their products as green
- Prices are relatively low with no major differences across suppliers
- The price of green products is not significantly different to that of traditional products
- Quantities are large and the product is ordered by a large range of internal customers
- The product currently purchased is negatively impacting the environment
- The impact of the change will be highly visible to all

Examples of products that meet these requirements are printer/photostat paper, paint, cleaning products and efficient light bulbs.

### STEP 3: Review the Current Situation

Review the current procurement policy, process and procedures to include green procurement. Keep in mind the following guiding questions to inform the review:

**Challenges:** Why hasn’t green procurement developed naturally? What has stopped it from taking root? How can we identify and resolve these challenges?

**Opportunities:** Where do we already have resource efficient procurement in place? How did it happen without a major intervention? What lessons can we draw from this to increase our chances of success?



#### **STEP 4: Market the Project**

A project launch will raise the project profile and increase awareness, understanding and support of the municipality's efforts. Internal and external communication campaigns will increase buy-in and action, internally and externally. If documents have a logo on them that categorize them as part of the pilot, this will help both suppliers and local authority employees to understand what is happening. Slogans such as "Avoid, Reduce, and Recycle" can be displayed around the organization.

#### **STEP 5: Market Analysis**

Since the procurement department may not be very familiar with the sourcing of green product, market analysis will be useful. Various useful websites are available evaluating products in terms of their environmental impact.

#### **STEP 6: Engage Suppliers**

Once the market has been better understood, responses can be invited from suppliers after a choice has been made on the products and services required. This is best done as an interactive process, where suppliers are able to communicate with procurement to establish realistic standards, discuss possible development projects to produce better products, and suggest alternative solutions. Meanwhile, the team would be researching solutions and technical standards that can be used in product and service evaluation.

#### **STEP 7: Decide on Monitoring Approach – what is to be measured and how**

It is very important to demonstrate project success or lessons learnt through monitoring. Establish the indicators that determine whether the pilot has been a success and make sure they can be measured and the necessary measurement plans are in place

#### **STEP 8: Formalize Procurement**

Ensure the tender/bid specifications or contract reflects the new product or service criteria. These should include specific and easily understandable criteria in addition to general criteria. The legal department can assist in drawing up a sound contract that meets the municipality's standards.

#### **STEP 9: Pilot Wrap-Up**

It is important that the pilot has an end-date and is evaluated. Often these projects peter out through lack of a pre-determined end date and set of measurements to be evaluated. An objective, neutral group of people (preferably from senior management) should receive the results. Once the pilots have been implemented, it should be possible to build on them by expanding the range of products and services that are subject to the Green Procurement Policy.



## 11. Solutions to Potential Challenges

A list follows of solutions to the most likely potential challenges that may be met in the implementation of green procurement:

### Challenge: Price

There is a perception that resource-efficient products and services are more expensive

**Solution:** Challenge these perceptions and find products for the pilot where this is not the case.

- Full life costing needs to be considered over short-term thinking. 'Value for money' principle of procurement takes into account the full cost of the product over its entire life, not its cost over only one year. Budgetary mechanisms need to be put in place by Municipal Finance Departments to encourage whole life costing.
- Resources need to be dedicated to develop the business case for environmentally preferable goods and services.
- Find and demonstrate examples of where this is already happening in your City – e.g. of City of Cape Town's Electricity Department uses transformer stations that are fairly expensive, but last much longer than cheaper ones.

### Challenge: Insufficient knowledge:

Many local authorities are unfamiliar with the concept of resource efficient procurement or with the options available to them.

**Solution:**

- Train the driving team – particularly the Supply Chain Management (SCM) staff and line managers. This should be integrated with existing training e.g. when Accounting Officers SCM system is undergoing its annual review.
- Provide support: environmental departments would need to provide support to develop criteria for relevant (department-specific) products and services.
- Broad awareness raising sessions will be required for common understanding among all officials involved in procurement activities of what green procurement is and highlight elements of green procurement already being practiced.
- A phased approach to implementation will help set up the necessary expertise to develop relevant environmental procurement criteria.

### Challenge: Availability

Local distributors may not provide green products or services or only have limited options.



**Solution:**

- Alert your suppliers and enter into discussions with them - working with your regular local suppliers to encourage environmentally innovative approaches, and providing potential markets for such products, can help to give these suppliers a competitive advantage nationally and internationally.
- Choose viable pilot projects
- Implementation of any green procurement policy should be phased in accordance with product availability or potential availability.

**Challenge: No acceptable alternative to present product**

**Solution:** Run a pilot on products and/or services that do have acceptable alternatives.

**Challenge: No 'green' specifications provided by supplier.****Solution:**

- It is important that suppliers be asked to provide the environmental specifications of the products they are offering. Choose a pilot where specifications are reasonably available, either from existing suppliers or as standards provided by an independent organisation, local or international.
- National, provincial and municipal supplier database could be extended to include environmental information.

**Challenge: Purchasing habits**

Existing relationships between purchaser and supplier may hamper the switch to alternatives

**Solution:** Work with central procurement for your pilot, where existing relationships are better understood and may be managed.

Green procurement offers huge potential in meeting sustainable development objectives of local government. It is in fact a strategic opportunity waiting to be seized, but requires determined and focused action and drive to facilitate the necessary behavioural changes across all spheres of government. Local government (including the rest of the public sector) need to promptly become aware of the enormous power of its spending as a tool towards delivering on its developmental priorities in a sustainable manner into the future.

## 12. Green Procurement in Sustainable Energy Action Plans (SEAPs) and Covenant of Mayors

### 12.1. What is the Covenant of Mayors?



The Covenant of Mayors is the mainstream European movement involving local and regional authorities, who voluntarily commit to increasing energy efficiency and using renewable energy sources on their territories. Through their commitment, Covenant signatories aim to meet and exceed the European Union objective of a 20% reduction in CO<sub>2</sub> by 2020.

## 12.2. What is a SEAP?

The Sustainable Energy Action Plan (SEAP) is a key document outlining how the Covenant signatory intends to fulfil its commitment by 2020. It uses the results of the Baseline Emission Inventory to identify the best fields of action and opportunities for reaching the local authority's CO<sub>2</sub> reduction target. It defines concrete reduction measures, together with time frames and assigned responsibilities, which translate the long-term strategy into action. In the main target sectors of a SEAP – buildings, equipment/facilities and urban transport – green procurement plays a central role.

Signatories commit to submitting their SEAPs within the year following adhesion. The Covenant signatories could follow the structure of the SEAP template when preparing their Sustainable Energy Action Plan. The suggested content is:

1. SEAP Executive Summary
2. Overall strategy
3. Baseline Emission Inventory
4. Planned actions and measures for the full duration of the plan (2020)

## 12.3. Green Public Procurement in Sustainable Energy Action Plans

GPP can make a substantial contribution to the EU's 20-20-20 goals. Considering that public procurement accounts for around 18% of GDP in the EU, GPP could provide strong impetus for a reduction in EU greenhouse gas emissions, raise the share of EU energy consumption produced from renewable resources, and improve the EU's energy efficiency.

Sustainable Energy Action Plans (SEAPs) have become a powerful tool for cities and regions to plan, implement, monitor and evaluate climate and energy policies, and in doing so contribute to global mitigation and adaptation achievements. Through SEAPs, cities can implement measures in a structured and integrated manner, allowing them to systematically monitor their efforts in going beyond national legislation in these fields. A SEAP is also an instrument for cities to communicate to stakeholders – both locally and beyond – the importance of energy and climate change mitigation, and to encourage citizens and other relevant actors to subscribe to the city's ambitions.

Energy efficiency plans provide systematic ground for sustainable procurement. Public procurement and the way procurement processes are shaped and priorities set in the procurement decisions offer a significant opportunity for local authorities to improve their overall energy consumption performance.



SEAPs enable municipalities to gain political support for GPP, organize structures, set GPP targets, implement GPP and monitor success.

A SEAP can help disseminate the benefits of GPP as it can:

- Lead to savings in energy, water, and materials as well as in the associated operation,
- Reduce polluting substances and greenhouse gas emissions,
- Improve services to the public and thus enhance quality of life, meet higher quality standards and deliver better performance for public authorities and ultimately citizens,
- Create incentives for industry to develop 'green' technologies and products and promote them in the marketplace (influence the marketplace and encourage new entrants in the field of environmental technologies and products),
- Often lead to savings – for public authorities making the purchases and for society in general when the life cycle costs of the product are considered,
- Help new products and services that have been developed to meet the requirements of GPP to also become popular with private consumers.

#### 12.4 How to integrate Green Procurement into the SEAP process

GPP should form part of the municipality's long-term strategy. Green purchasing practices can contribute significantly to the strategic objectives of public authorities.

Both the long-term vision and the detailed measures are integral parts of the SEAP. For example, as a long-term strategy, the local authority could decide that all cars purchased for the municipal fleet should be electric. Of course, the municipality cannot vote on the budget for all cars that will be purchased up until 2020, but they can include this measure in the plan and evaluate its impact up until 2020 by reviewing the estimated future purchases of cars by the municipality.

When considering a GPP policy, it is important to define what the main objectives of the policy should be. For example, the contracting authority may already have other policies or decrees in place (political decisions already reached regarding the avoidance of certain products, local procurement handbooks, Environmental Impact Assessments, etc.) which cover some of the aspects of the proposed new GPP policy. By identifying any such policies and analyzing their content, you will be able to ensure that your proposed policy does not conflict with the contracting authority's other objectives. Once you have identified synergies with any other policies, your main objectives can be defined more accurately.

#### 12.5 Public Procurement Measures in the Following Areas of Intervention

##### **Buildings and equipment**

- Purchasing or renting buildings that are efficient from an energetic point of view
- Inclusion of selection criteria for architects and engineers on experience in sustainable building design
- For new public buildings (schools, administration), special requirements for modern solutions to use natural light indoors as well as warm water preparation with solar panels



- Introduction of energy efficient criteria when retrofitting heating systems, improving isolation materials, etc.
- Improve lighting in buildings and procurement of energy-efficient lamps
- Purchase energy-saving office equipment bearing ecolabel or development of tenders with emission criteria from ecolabels for printers, multifunctional equipment, copiers, etc.
- Acquisition of energy efficient refrigerators
- Purchase of recycled office equipment
- Introduction of energy efficient cooling systems
- Purchase recycled office supplies

#### **Street lighting**

- Introduction of energy efficiency criteria for street lighting
- Procurement of 100% renewable energy for street lights
- Replacement of traditional traffic lights with LEDs
- Energy efficiency requirements for contracting management of the public lighting system

#### **Transport and municipal fleet**

- Introduction of energy efficiency criteria for an environmentally-friendly municipal fleet
- Procurement Electric vehicles (EVs) including bicycles, scooters, rail cars, forklifts, buses, trucks and cars as municipality vehicles together with electricity from renewables
- Purchase of low-emission cars

#### **Local energy production**

- Renewable energy purchase for municipal services and buildings
- Joint Public Procurement (JPP) of solar thermal energy and photovoltaics





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