GPP 2020 | procurement for a low-carbon economy

Rental of energy efficient imaging equipment

Oeste CIM, Portugal

- During the duration of the contract (3 years) savings of 1,092 kWh of used energy
- During the duration of the contract (3 years) savings of 0.6 t of CO_2e
- During the duration of the contract (3 years) savings of 0.1 toe of used energy

Image source: OesteCIM | Manuel Salvador

Benchmark
Average MFD on the market

- 0.3 toe energy consumption
- 1.5 t CO_2e

GPP 2020 tender
Energy efficient MFD

- 0.2 toe energy consumption
- 0.9 t CO_2e

Results

- 0,1 toe energy savings
- 0.6 t CO_2e savings

Contract tendered

- Public tender for the rental of imaging equipment to be used in the offices of OesteCIM, including consumables and maintenance of equipment.
- 4 multifunction devices, divided in 3 types capable of printing and copying.
- 36 month rental contract;
- Total cost: 41,000 € (excluding VAT)

Procurement approach

Tendering followed the open procedure:

Multifunctional devices	
Technical specifications	**Award criteria**

Type 1:
- Number of units: 2;
- Colour printing;
- Printing velocity: 30 ipm;
- Memory: 2 GB
- Disk: 160 GB;
- Possibility to predefine Double sided printing;
- Energy star certified
- Power consumption:
  o Run mode: ≤ 650 W
  o Standby: ≤ 65 W
  o Sleep: ≤ 4,5 W
Type 2:
- Number of units: 1;
- Colour printing;
- Printing velocity: 70 ipm;
- Memory: 2 GB
- Disk: 160 GB;
- Possibility to predefine double sided printing;
- Energy star certified
- Power consumption:
  o Run mode: ≤ 1200 W
  o Standby: ≤ 120 W
  o Sleep: ≤ 4,5 W
Type 3:
- Number of units: 1;
- Monocolour printing (black/white);
- Printing velocity: 35 ipm;
- Memory: 256 MB
	- No award criteria were defined.

- Possibility to predefine double sided printing;
- Energy star certified
- Power consumption:
  ○ Run mode: ≤ 600 W
  ○ Standby: ≤ 50 W
  ○ Sleep: ≤ 8 W	

Contract clauses

Repair and maintenance:

- The contract has a span duration of 36 months, during this time the supplier must supply all consumables (except paper and other printing and copying media) and parts necessary for the proper functioning of the equipment.

Criteria development

Criteria were developed through consultation of the EU GPP criteria for imaging equipment available at http://ec.europa.eu/environment/gpp/pdf/criteria/imaging/EN.pdf

Results

	CO_2 emissions (t CO_2e)	Energy consumption (toe)
Low Carbon Solution (per year)	0.3	0.06
Average Solution (per year)	0.5	0.09
Savings/year	0.2 t CO_2e/year	0.03 toe/year
Savings/lifetime (=3 year contract)	0.6 t CO_2e	0.1 toe

Calculation basis

Estimates were made using information on Typical Electricity Consumption (TEC) of imaging equipment available at http://www.eu-energystar.org/database.

Benchmark, average solution	Low carbon solution
• Type 1: ○ Printing velocity: 30 ipm ○ Colour printing ○ TEC: 192.4 kWh/year* • Type 2: ○ Printing velocity: 70 ipm ○ Colour printing ○ TEC: 504.4 kWh/year • Type 3 ○ Printing velocity: 35 ipm ○ Monocolour printing ○ TEC: 135.2 kWh/year	• Type 1: ○ Printing velocity: 30 ipm ○ Colour printing ○ TEC: 130.0 kWh/year* • Type 2: ○ Printing velocity: 70 ipm ○ Colour printing ○ TEC: 291.2 kWh/year • Type 3 ○ Printing velocity: 35 ipm ○ Monocolour printing ○ TEC: 109.2 kWh/year
Energy consumption 1024.4 kWh/year	Energy consumption 660.4 kWh/year

* Purchase includes 2 units of the same type.

- CO_2 emission factor for electricity generation in Portugal: 0,506 kg/kWh.

Lessons learned

With this rental contract, OesteCIM was able to keep a high imagine equipment quality level (permanent working warranty with technical assistance) and at the same time was able to guarantee a monthly energy saving and a consumables price control practice.

Although all the purchased equipment presented the Energy Star label, in the future other criteria related to recycled materials will be included, for example, equipment that allows the use of recycled consumables, in order to reduce even more the CO_2e emissions.

This kind of rental process is going to be used also in other municipalities of OesteCIM, since the Energy Star label is nowadays quite diffused and it is the bare minimum to achieve a more efficient natural resources management.

Contact

Paula Trindade: paula.trindade@lneg.pt

Luca Zonca: luca.zonca@lneg.pt

Manuel Salvador: salvador@oestecim.pt

About GPP 2020

GPP 2020 aims to mainstream low-carbon procurement across Europe in support of the EU's goals to achieve a 20% reduction in greenhouse gas emissions, a 20% increase in the share of renewable energy and a 20% increase in energy efficiency by 2020.

To this end, GPP 2020 will implement more than 100 low-carbon tenders, which will directly result in substantial CO_2 savings. Moreover, GPP 2020 is running a capacity building programme that includes trainings and exchange. – www.gpp2020.eu

About PRIMES

Across six countries in Europe; Denmark, Sweden, Latvia, Croatia, France and Italy, PRIMES project seeks to help municipalities overcome barriers in GPP processes, many of which lack capacity and knowledge.

PRIMES aims to develop basic skills and provide hands-on support for public purchasing organisations in order to overcome barriers and implement Green Public Purchasing. This will consequently result in energy savings and CO_2 reductions. – www.primes-eu.net

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