GPP 2020 | procurement for a low-carbon economy

Purchase of energy efficient notebooks

Association of Municipalities and Towns of Slovenia

- Contract covers 30 public contracting authorities
- Purchase of energy efficient notebooks (260 units)

Benchmark

- 32.6 kWh/year
- 11.2 t CO_2/year
- 14 toe/lifetime
- 56.2 t CO_2/lifetime

GPP 2020 tender

- 8.25kWh/year
- 2.8 t CO_2/year
- 4 toe/lifetime
- 14.2 t CO_2/lifetime

Results - Savings

- 24.4 kWh/year (=2 toe/year)
- 8.4 t CO_2/year
- 10 toe/lifetime
- 42 t CO_2/lifetime

Foto: dreamstime.com / Mikael Damkier

www.gpp2020.eu

Public green tender

- Framework agreement with six tenderers for the duration of 42 months for the supply, configuration, installment and maintenance of energy efficient notebooks.
- Published by Association of Municipalities and Towns of Slovenia (SOS) in December 2014.
- The tendering procedure involved 29 municipalities and SOS = 30 contracting authorities. Tender included 260 devices: 217 basic notebooks and 43 high performance notebooks.
- SOS entered into a 42 months general framework agreement. Individial contracting authorities establish individual framework agreements with all tenderers that are part of the general framework agreement.

Procurement approach

Type of procurement procedure: Open procedure

Subject matter: supply, configuration, installment and maintenance of energy efficient notebooks.

Specifications:

- Offered models of notebooks must fulfill the latest ENERGY STAR standards of energy efficiency, valid on the day of tender notice (that was ENERGY STAR v 6.1).
- Notebooks must be designed so that RAM, hard drive and battery are accessible and can be replaced.
- Sound level of offered models must be measured in accordance with SIST EN ISO 7779 standard and must not exceed 33dB during writing of data on hard disk drive. Figure must be marked with LpA,m label in dB.
- Battery life span:
    - Basic notebooks must have a battery autonomy of at least 6 (six) hours with one charging, or it has to have six-cell battery.
    - High performance notebooks must have a battery autonomy of at least 9 (nine) hours with one charging, or it has to have eight-cell battery.
- LCD screen backlight must not contain more than 3,5mg of mercury per lamp.
- Plastic parts heavier than 200 g must have permanent marking that proofs the material is in accordance with ISO 11469 and ISO 1043 standard or other equivalent standard.
- Spare part supply period after the delivery of the device is 5 (five) years for notebooks.
- Period of supply and maintenance of batteries and its spare parts is at least two years after the warranty period ends.

Award criteria: Lowest price.

Contract clauses:

Upon delivery of notebook to individual contracting authority, the supplier will have to provide an instruction book on lowering the energy consumption available in Slovenian language. Instructions must include at least:

- Information on factors that include energy consumption (e.g. standby and hibernation settings, screen luminance, screen dimming, USB ports, turned on wireless connection, etc.) and ways to save energy, related to this factors.
- Instructions on how to adjust settings that effect energy consumption and prolong notebook battery autonomy (adjusting screen luminance, turning off screen saver, turning on energy saving mode, etc.)
- Information on ways to prolong battery life span (ways of charging, discharging, etc.)
- Warnings on how charger must be unplugged from the socket when battery is full, because even then the charger still consumes energy.
- Warnings on how even in standby and hibernation modes, notebook still consumes energy and that it is best to shut down the notebook in case of longer disuse.

Market response:

SOS received bids from 6 different bidders.

Criteria development

This tender follows requirements included in the Regulation on Green Public Procurement (http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED5194).

Results

Tender was filed in two sections for an approximate volume of 260 notebooks. We estimate they will be in use for at least five years.

	CO_2 emissions
Low Carbon Solution (GPP 2020)	2.8 t CO_2/year
Average solution on the market (Benchmark)	11.2 t CO_2/year
Savings	8.4 t CO_2/year 42 t CO_2/lifetime

	Electricity consumption
Low Carbon Solution (GPP 2020)	8,248 kWh/year
Average solution on the market (Benchmark)	32,639 kWh/year
Savings	24,391 kWh/year (2 toe/year) 10 toe/lifetime

Calculation basis

Savings were calculated with the »office-ICT-calculator of GPP 2020« (version 9.2.2015). Data inputs for GPP 2020 tender are supplied by Association of Municipalities and Towns of Slovenia. 260 notebooks were purchased with an average wattage: Idle 5.42 W, Sleep 0.62 W and Off 0.31 W. The savings of energy and CO_2-emissions were calculated on the following basis:

Electricity:

Benchmark (average solution on the market): 85 kWh (value taken from the GPP 2020 calculator) / notebook / year * 260 notebooks = 32,639 kWh/year

Low carbon solution: 52 kWh (value taken from the GPP 2020 calculator) / notebook / year * 260 notebooks purchased = 8,248 kWh/year

From which follows: 32,639 – 8,248 = savings of 24,391 kWh/year

CO_2 emissions:

Benchmark: 32,639 kWh/year * 0.345 kg CO_2/kWh (for Slovenia) = 11.2 t/year

Low carbon solution: 8,248 kWh/year * 0.345 kg CO_2/kWh (for Slovenia) = 2.8 t/year

From which follows: 11.2 – 2.8 = 8.4 t CO_2/year

Lessons learned

The Association of Municipalities and Towns of Slovenia realized that more and more bidders are aware of the importance of green technologies. Prices that were offered are acceptable and at least in the case of SOS they do not differ much from the ordinary standard equipment.
If this trend continues, other producers will start to offer energy efficient computers too. This increases competitiveness and ultimately lowers the price.

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Tender accessible at:
Web page of the Association of Municipalities and Towns of Slovenia
http://skupnostobcin.si/dobava-tablicnih-racunalnikov-in-energetsko-ucinkovitih-prenosnih-racunalnikov/ (last visited: 28.07.2015)

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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