



# Supply of energy efficient IT equipment 2016

## City of Krizevci

- Replacement of outdated technology
- CO<sub>2</sub> reduction and energy savings
- Improvement of cities social responsible profile



### Standard product / old tender = benchmark

- Replacement of outdated technology
- 665 kg CO<sub>2</sub> emissions
- 2.159 kWh energy consumption

### Primes GPP tender

- Energy star technology
- 387 kg CO<sub>2</sub> emissions
- 1.258 kWh energy consumption
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### Results

- 902kWh energy savings
- 278 kg CO<sub>2</sub> savings
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## Introduction to case

### 1.1 PITCH-TALK – SUMMARY (3-5 LINES)

In April 2016 the city of Krizevci needed to buy new computers and notebooks, as a member of Primes project it wanted to reduce greenhouse gas emissions and other pollutants caused by the inefficient use of energy, this case study shows how they managed to save energy and reduce CO2 emissions by improving the tendering process.

### 1.3 CASE CONTENT AND CASE ISSUE (5-10 LINES)

The tender contained a small purchase of IT equipment, the main difference from the standard tendering process was in the technical specifications of the IT equipment, as the city of Koprivnica asked for the more energy efficient IT equipment than in previous tendering processes.

### 1.4 SOLUTIONS APPLIED

The city of Krizevci decided to go with the latest Energy star standard (or equal worth), which incorporates the highest energy efficiency and environmental standards for the products which are available on the Croatian market. Every appliance comes with two price tags: what it costs to take it home and what it costs to operate and maintain it each month. ENERGY STAR qualified appliances incorporate advanced technologies and use 10 to 50 percent less energy than standard appliances. From refrigerators to clothes washers, ENERGY STAR qualified appliances save energy, save money, and help reduce emissions of greenhouse gases and air pollutants at the source.

## Contract tendered

- Tender for furniture and energy efficient IT equipment tendered by the city of Krizevci
- 7 pieces of IT equipment included: desktop computers, laptops, monitors and copiers
- Tender was published on the electronic portal for public procurement
- Total cost: 5.000,00 € (excluding VAT)
- This tender forms part of the EU supported project *Procurement in Municipalities focusing on Energy Efficient Solutions (PRIMES)*

## Procurement objectives

- Aiming to buy energy efficient equipment, municipality has included green criteria in technical specification of IT equipment. As all eco labels are acceptable, municipality has used Energy Star as an example of condition in technical specification where stands that “Procurement subject is energy efficient IT equipment that owns eco label such as Energy Star or any other same value eco label mark”.

- This tender represents the commitment and contribution of the City to reduce carbon dioxide emissions and increase energy efficiency and thus reduce the adverse impact of climate changes

## Procurement approach

Tendering followed the open procedure, and was in this case divided into three lots:

Lot 1: Notebooks	
<p><b>Technical specifications</b></p> <ul style="list-style-type: none"> <li>- 3 years warranty</li> <li>- Equipment must fulfil the latest ENERGY STAR standards of energy efficiency</li> <li>- Built-in efficiency mode</li> <li>- All components labelled with the CE-mark</li> <li>- Easy accessible and replaceable RAM</li> <li>- <b>Verification:</b> All information included and proven in the bidding documentation</li> </ul>	<p><b>Award criteria</b></p> <ul style="list-style-type: none"> <li>- <b>Lowest price</b></li> </ul>

Lot 2: Desktop computers	
<p><b>Technical specifications</b></p> <ul style="list-style-type: none"> <li>- 3 years warranty</li> <li>- Equipment must fulfil the latest ENERGY STAR standards of energy efficiency</li> <li>- Built-in efficiency mode</li> <li>- All components labelled with the CE-mark</li> <li>- Easy accessible and replaceable RAM</li> <li>- <b>Verification:</b> All information included and proven in the bidding documentation</li> </ul>	<p><b>Award criteria</b></p> <ul style="list-style-type: none"> <li>- Lowest price</li> </ul>

Lot 3: Monitors	
<p><b>Technical specifications</b></p> <ul style="list-style-type: none"> <li>- 3 years warranty</li> <li>- Equipment must fulfil the latest ENERGY STAR standards of energy efficiency</li> <li>- Built-in efficiency mode</li> </ul>	<p><b>Award criteria</b></p> <ul style="list-style-type: none"> <li>- Lowest price</li> </ul>

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|--|--|
| - All components labelled with the CE-mark |  |
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### Contract clauses

Repair and maintenance: warranty of compliance for following environmental aspects:

- Hazardous waste: separated collection and delivering to authorised waste managers.
- No hazardous waste: good management according to general law and local regulations.
- Upon delivery of equipment to contracting authority, supplier will also have to provide instruction book on lowering energy consumption in Croatian or English language. Informations 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.) Informations 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 in is best to shut down the notebook in case of longer disuse. This data should be provided in hard copy and CD.

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## Criteria development

- Offered models of equipment must fulfil the latest ENERGY STAR standards of energy efficiency, valid on the day of tender notice. Details available <http://www.energystar.gov/>

## Results

Energy savings and CO<sub>2</sub> emission reductions in the results were calculated based on lifecycle of 5 years for desktop computers and 4 years for laptops and monitors. The results are as follows

	CO <sub>2</sub> emissions (kg CO <sub>2</sub> e/year)	Energy consumption (toe/year)
(Low Carbon Solution)	387	0,18
(Last Tender/or „worst case“)	665	0,108
Savings	278 kg CO <sub>2</sub> e/year	0,088 toe/year

## Calculation basis

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## Lessons learned

- The majority of producers of IT equipment label their products with ENERGY STAR. The model of putting asking for the latest certificate is easy replicable and will be used also for the next IT equipment tender for the City of Krizevci.

As the competitiveness was not compromised, in future, more ambitious quantities will be procured through the same process.

## Contact

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## 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<sub>2</sub> reductions. – [www.primes-eu.net](http://www.primes-eu.net)

## 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<sub>2</sub> savings. Moreover, GPP 2020 is running a capacity building programme that includes trainings and exchange. – [www.gpp2020.eu](http://www.gpp2020.eu)



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