



Purchase of vehicles

Zagreb Holding, Croatia

- CO₂ savings through purchase of energy efficient vehicles
- Improvement of environment protection
- Improvement of company's social responsible profile



Benchmark = 8 eco diesel vehicles

- 248 t CO₂e
- 77 toe energy

GPP 2020 tender = 8 Electric vehicles

- 0 t direct CO₂e
- 122 t indirect CO₂e
- 34 toe energy

Results

- 43 toe energy savings
- 126 t CO₂e savings

Contract tendered

- Tender for cars by the Zagreb Holding subsidiary Zagreb Cemeteries, Croatia in 2015
- 8 vehicles purchased to renew the car fleet with energy efficient vehicles in order to improve the environment protection, especially CO₂ savings and clean air promotion by using sustainable technology solutions.
- In this procurement method the needs of the users were defined in conclusion electric vehicles were chosen because the vehicles are going to be used for funerals and will not be driven at higher speed.
- Purchase contract
- Total cost: 200,000 € (excluding VAT)

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Procurement approach

Tendering followed the open procedure:

8 electric vehicles

Technical specifications

- Min battery capacity: 250 Ah
- Reference electricity consumption (Wh/km): max 100
- Max direct CO₂ emissions (g/km): 0
- Working engine power: 4-6 kW

Verification: Technical dossier of the manufacturer served as means of proof

Award criteria: Lowest price

Eligibility of bidders: The bidder/tenderer must proof that the offer fulfils all technical specifications and requirements in form of statement signed by responsible and authorized person.

Contract clauses

Following contract clauses applied:

- Noise: compliance with levels established by general law and local regulations

Criteria development

Strengthening and improving sustainable consumption of energy in public companies was the main objective of energy efficient vehicles purchase.

The ambition of the public tender was to set standards for further purchasing by keeping up with technology change as the key interlinked pillar of a sustainable transportation and therefore sustainable economy.

Results

Energy savings and CO₂ emission reductions were calculated based on GPP 2020 methodology for a lifetime of 7 years. The results are as follows.

	CO ₂ e emissions (t CO ₂ e/lifetime)	Energy consumption (toe/lifetime)
Low Carbon Solution	122	34
Benchmark: Average solution	248	77
Total savings	126 t CO ₂ e/lifetime	43 toe/lifetime

Calculation basis

For all vehicles the travel distance of 200.000 km per lifetime is assumed. Also, all vehicles were compared with the current average product available on the market.

- Low carbon solution: Electric vehicles with direct CO₂-emissions of 0 g/km and indirect emissions (for the production of the electricity) of 61 g/100 km.
- Benchmark: Average vehicle that consumes 4,5 l Diesel/ 100 km

Lessons learned

Significant reduction of CO₂ combined with total reduction of fuel consumption stated in comparison to standard vehicles.

Better defining the needs of the user should become a common practice, with this example it was shown that an alternative electric vehicle of far less power could do the same job as a standard diesel engine.

New vehicles are expected to save energy, be health- and eco-friendly products which should be a positive example for future purchase cycles.

Gained experience will enable this procurer to do better market analysis and define more ambitious demands on energy efficiency within future tendering processes and determined in-house standards.

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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 CO₂ savings. Moreover, GPP 2020 is running a capacity building programme that includes trainings and exchange. – www.gpp2020.eu

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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 CO₂ reductions. – www.primes-eu.net



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