



Lease-purchase of low-carbon vehicles

HEP Ltd., Croatian Energy Company, Croatia

- Considerable CO_{2e} savings through lease-purchase of energy efficient vehicles
- Greening the passenger car fleet and moving towards electric vehicles
- Improvement of the company's social responsibility profile



Standard product = benchmark

- 589 standard average vehicles as of May 2015
- 21,366 CO_{2e} emissions
- 6,670 toe energy

GPP 2020 tender

- 589 low-carbon vehicles
- 18,394 CO_{2e} emissions
- 5,737 toe energy

Results

- 933 toe energy savings (over 5 years)
- 2973 t CO_{2e} emissions savings (over 5 years)

Contract tendered

- Tender for passenger cars tendered by the Croatian Energy Company (HEP Ltd.), Croatia in 2014
- 589 vehicles purchased to renew the car fleet with energy efficient vehicles, achieving especially CO₂ savings and improving air quality
- 4 lots tendered – Lot 1: 82 High class vehicles; Lot 2: 125 Medium class vehicles; Lot 3: 369 Low class vehicles; Lot 4 – 13 Electric vehicles
- 60 months lease-purchase contract
- Total cost: 13,800,000.00 € (excluding VAT)



Procurement approach

Tendering followed the open procedure, and was divided into four lots:

Lot 1: 82 Executive class vehicles	
<p>Technical specifications</p> <p>Sublot 1 – High executive class (6 diesel vehicles)</p> <ul style="list-style-type: none"> - Emissions standard: min. EURO V - Max CO₂ emissions (g/km): 155 - Max fuel consumption (l/km): 6 <p>Verification: Technical dossier of the manufacturer served as means of proof</p> <p>Sublot 2 – Middle executive class (18 diesel vehicles)</p> <ul style="list-style-type: none"> - Emissions standard: min. EURO V - Max CO₂ emissions (g/km): 140 - Max fuel consumption (l/km): 5,5 <p>Verification: Technical dossier of the manufacturer served as means of proof</p> <p>Sublot 3 – Low executive class (58 diesel vehicles)</p> <ul style="list-style-type: none"> - Emissions standard: min. EURO V - Max CO₂ emissions (g/km): 130 - Max fuel consumption (l/km): 5 <p>Verification: Technical dossier of the manufacturer served as means of proof</p>	<p>Award criteria: Lowest price</p> <p>Eligibility of bidders: The bidder must proof that the offer fulfils all technical specifications and requirements in form of a written statement signed by the responsible and authorised person.</p>

Lot 2: 125 Medium class vehicles	
<p>Technical specifications</p> <ul style="list-style-type: none"> - Emissions standard: min. EURO V - Max CO₂ emissions (g/km): 115 - Max fuel consumption (l/km): 4,5 <p>Verification: Technical dossier of the manufacturer served as means of proof</p>	<p>Award criteria: Lowest price</p> <p>Eligibility of bidders: The bidder must proof that the offer fulfils all technical specifications and requirements in form of a written statement signed by the responsible and authorised person.</p>
Lot 3: 369 Small class vehicles	
<p>Technical specifications</p> <ul style="list-style-type: none"> - Emissions standard: min. EURO V - Max CO₂ emissions (g/km): 112 - Max fuel consumption (l/km): 4,5 <p>Verification: Technical dossier of the manufacturer served as means of proof</p>	<p>Award criteria: Lowest price</p> <p>Eligibility of bidders: The bidder must proof that the offer fulfils all technical specifications and requirements in form of a written statement signed by the responsible and authorised person.</p>
Lot 4: 13 Electric vehicles	
<p>Technical specifications</p> <ul style="list-style-type: none"> - Min battery capacity (KWh): 15 - Min range with one charging (km): 120 - Reference electricity consumption (Wh/km): max. 160 - Max CO₂ emissions (g/km): 0 - Working engine power: min. 45 kW <p>Verification: Technical dossier of the manufacturer served as means of proof</p>	<p>Award criteria: Lowest price</p> <p>Eligibility of bidders: The bidder must proof that the offer fulfils all technical specifications and requirements in form of a written statement signed by the responsible and authorised person.</p>

Contract clauses

The following contract clauses were applied to all lots:

- Emissions related to air quality: good management, especially of exhaust gases
- 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 this purchase-lease contract.

The ambition of the public tender was to set standards for further purchasing and leasing solutions by leap-frogging technology uptake as the key interlinked pillar of a sustainable transportation management and therefore driving a sustainable economy.

Results

Energy savings and CO₂ emission reductions were calculated based on the GPP 2020 methodology. They have been calculated for a lifetime of 5 years. The results are as follows.

	CO ₂ e emissions	Energy consumption
Low Carbon Solution	18,394 t CO ₂ e/year	5,737 toe/year
Average reference car as of May 2015	21,366 t CO ₂ e/year	6,670 toe/year
Annual savings	595 t CO ₂ e/year	187 toe/year
Total savings (over 5 years)	2,973 t CO ₂ e	933 toe

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Calculation basis

Calculation is based on the developed GPP 2020 methodology. The case specific calculation was made for each type of procured vehicles (lots and sub-lots). For all vehicles a travel distance of 50,000 km per year was taken into account.

All vehicles were compared with the current average product available on the market (as of May 2015).

- Lot 1, Sub-lot 1 – High executive class new vehicle consumes 6 l/km whilst average case vehicle consumes 7,3 l/km
- Lot 1, Sub-lot 2 – Middle executive class new vehicle consumes 5,5 l/km whilst average case vehicle consumes 6,3 l/km
- Lot 1, Sub-lot 3 – Low executive class new vehicle consumes 5 l/km compared to average case vehicle consuming 6 l/km
- Lot 2 – Medium class new vehicle consumes 4,5 l/km compared with average case vehicle consuming 5,5 l/km
- Lot 3 – Small class vehicle consumes 4,5 l/km whilst average case vehicle consumes 5 l/km
- Lot 4 – Electric vehicles specified as Energy class A in comparison with average case vehicle consuming 5 l/km

Lessons learned

A significant reduction of CO₂ combined with reduction of fuel consumption in comparison to standard vehicles could be achieved with this contract..

The gained experience will enable the involved staff from the procurement department to do better market analysis and define more ambitious demands on energy efficiency within future tendering processes.

The in-house standard at HEP Ltd. for procurement activities was raised and the social responsibility portfolio of the company strengthened.

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About GPP 2020



procurement
for a low-carbon
economy

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



About PRIMES



PRIMES
Green Public Procurement

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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