PRIMES
Green Public Procurement

Co-funded by the Intelligent Energy Europe Programme of the European Union

Green public procurement for the tram in Daugavpils City

Latvian Environmental Investment Fund and JSC „Daugavpils Satiksme“

- Applying principles of green public procurement to renew fleet of public transportation means

Photo: Daugavpils municipality

Standard product / conventional tender

Trams for the lowest price

GPP (PRIMES) tender

Trams allowing for brake energy recuperation

Potential for savings

Potentially saving 7-20% of energy and reduce annual CO_2 emissions by 9-26 t CO_2/a

This template is developed by GPP 2020 and modified by PRIMES.
For more information about GPP 2020 check out www.gpp2020.eu

GPP 2020 procurement for a low-carbon economy

Introduction to case

1.1 PITCH-TALK – SUMMARY

Joint Stock Company Daugavpils Satiksme who serves Daugavpils City would like to renew their fleet of trams; this action as part of a bigger EU funded project to improve the infrastructure of Daugavpils city public transport. Although trams per se is seen as a green transportation mean, Daugavpils Satiksme wanted to carry out a green tender, which was also required by the funding source.

1.3 CASE CONTENT AND ISSUE

Currently Daugavpils Satiksme operates with 40 trams, and they would like to acquire 12 new. In order to secure compliance with the principles of green procurement, they contacted the PRIMES team to improve the tender specifications.

1.4 SOLUTIONS APPLIED

Since this is a very large procurement Daugavpils Satiksme hesitated to apply the most economically advantageous principle due to insecurity on how to ensure sufficient transparency and validity of the decisions. Therefore, they applied the lowest price principle but with very detailed criteria. Daugavpils Satiksmes own technical experts elaborated the technical specification. The PRIMES team helped to add more green requirements[1].

Tender features

- Subject matter: Purchase of trams in framework of developing environmentally friendly public transport infrastructure in the city of Daugavpils
- Value of the contract (based on offers of bidders): 4,2-11,7 millions € (without VAT)
- Type of procedure: EU wide-open tender.
- Type of contract: supply contract.
- Division in 3 lots (8 trams, 2 trams, 2 trams).

Procurement objectives

The objective of the tender was to purchase environmental friendly trams for Daugavpils city applying lowest price principle, with very detailed technical specification.

Procurement approach

The following green criteria were included in the technical specification:

- Trams are equipped with energy recuperation of breaking energy. Recovered energy may not cause a rise in voltage above the permissible limits - 720 V DC
- Coaches from one maintenance until the next maintenance should drive no less than 6000 km.

[1] The costs of involvement of the PRIMES experts were covered by the PRIMES project. The costs of the experts from “Daugavpils Satiksme” were fully covered by the own means of the “Daugavpils Satiksme”, which is an enterprise owned by Daugapils municipality.

- A coach is built from materials, which are recyclable (more than 90%).
- The permitted noise level inside the cabin is no more than 80 dB and a tram driver's cab no more than 75 dB
- Applied specified components to reduce created outdoor noise
- Monitoring system of power consumption
- The supplier shall provide training to “Daugavpils Satiksme” employees on maintenance and driving, amongst other issues, including economic driving and environmentally friendly maintenance
- Design requirements for people with special needs: tram wagons shall be fitted for pram parking and boarding, safe boarding for handicapped people and wheelchair parking. These seats must be equipped with an alarm button, safety strap and handles

Contract performance clauses

- The trams must correspond to the tender specifications, and be accompanied with technical declarations and tests results as agreed in the contract (detailed requirements)
- When the tram is delivered to Daugavpils, the representative of the supplier shall perform test ride (250 km) together with representatives from “Daugavpils satiksme”.
- Warranty time 2 years
- The supplier shall bear all the losses caused to the recipient, if the quality of the delivered trams does not meet the requirements of the technical specification, as concluded by the Competent Authority
- In case of delaying of supply the contractor can apply fine

Criteria development

There are neither EU GPP criteria for trams, nor case studies. Therefore, to develop a criteria combination of sources was applied: EU GPP for other transportation means, publicly available environmental product declarations by some producers, and discussions with experts on feasibility and importance of the criteria. One criterion (power use per passenger km) was largely discussed but not included due to potential bias in measurements (dependency not only on technical performance of the tram, but also the road and geographical terrain).

Estimated results

The tender was announced in Spring 2016, and several bidders from the European Union and also other countries have participated, but the decision is still pending.

	Expected CO_2e emissions, kg CO_2/year	Expected energy consumption, MWh/year
Trams without recuperation of braking energy	**133**	**886**
Trams with recuperation of braking energy (7-20 %)	**106-124**	**707-824**
Potential savings	**9-27**	**62-179**

The calculations are based on market research, applying GPP2020 emission factors for energy (0,150 kgCO_2/kWh). The estimates as based on current energy use for trams (ca. 88,6 MWh/a per tram) and potential efficiency of recuperation systems (7-20%). However, taking into account, that the tram is one of the most environmentally and climate sound forms of public transportation, the benefits of investing in tram infrastructure are much higher than just regaining a braking energy.

Lessons learned

- No prior meetings with market actors were held since such meetings demand a lot of resources, especially, for international tenders e.g. translation and preparation. However, taking into account the size of the contract, such meeting could help to “green” even more the tenders.

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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_2 reductions– 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_2 savings. Moreover, GPP 2020 is running a capacity building programme that includes trainings and exchange. – www.gpp2020.eu

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The above text contains general information on the referred procurement procedure. This information is **for general guidance only and shall not be treated as legal advice**. In case you have any questions related to the procedure please contact the partner as indicated in this document.