

Berlin purchases cost-efficient and 'clean' police cars

BERLIN POLICE FORCE, GERMANY

Procurement objectives

The Berlin Police Force procures a variety of vehicles every year (approximately 200). The procurement process begins with the identification of needs and includes the re-fitting of vehicles for their final use in daily police work. The police force is also considering life cycle costs in the procurement process of vehicles to include energy and environmental costs.

Background

Berlin is Germany's most populous city and one of Germany's 16 Federal States – which requires Berlin's Police force to base their public procurement on the state's procurement regulation: [Procurement and Environmental Regulation](#) (November 2012). Amongst other requirements, the Regulation states that consideration must be given to using life-cycle costing (LCC) in evaluating tenders. As a state agency, the police force must also apply the requirements included in the European [Clean Vehicles Directive](#).



Criteria used

The sustainability criteria included in the procurement process were based on those required by the Clean Vehicles Directive. However, these were developed in further detail to meet the needs of the police force and adjusted to the current status quo of vehicle technology.

Technical specifications:

The environmental aspects covered were as follows:

- Meeting German 4 standard for particle emissions – this allows the vehicle to be driven in German inner-city environmental zones ('Umweltzone')
- Carbon particulate filter (for diesel engines)
- Meeting the Euro 5 European Emission Standard (the most demanding standard at the time of tendering)

Award criteria: The tender was awarded using a two-step process:

- 1) Assessment of technical aspects (40% of total points) and LCC (60% of total points), which includes financial and environmental costs. A maximum of 40,000 points could be awarded.
- 2) The highest scoring bid from step 1, along with the bids which scored up to 10% less points, were then compared purely on the basis of their purchase price, awarding the tender then to the lowest bid.

LCC including environmental costs: Maintenance costs were calculated based on calculations made using co-efficients for future specific maintenance and repair work of the vehicles (e.g. tyres, window replacement). The environmental costs were calculated based on a) fuel consumption, b) energy consumption, c) CO2 emissions, d) NOx, e) non-methane hydrocarbons and f) particulate matter. The [lifetime cost calculation](#) from the Clean Vehicles Directive was largely used as a basis for calculating the environmental costs.

Results

There were no problems encountered with bidders being unable to conform or meet the tender requirements. Also, the total number of bids received did not differ to the number received from previous tenders.

Due to the strict focus and the consideration of the various costs during the products lifetime, the tender was awarded to the bidder who successfully complied with the predetermined environmental criteria and also satisfied the financial requirements imposed, thus also obtaining a positive economic result for the tendering authority.



Berlin purchases cost-efficient and 'clean' police cars

Environmental impacts

Road transportation is responsible for 26% of total energy consumption, which relates to about 24% of all CO₂ emissions in the EU, with passenger cars being responsible for more than half of these emissions. The main impact of vehicle procurement comes from emissions and pollutants released in the use phase of the vehicle, with exhaust gases (CO₂) being the principal environmental impact.

Lessons learned

The procurement procedure was considered to be well suited for tendering certain types of police cars for the Berlin Police Force.

The process will be used for future tenders, however, adjusted to use LCC data for the entire award phase of the contract, not just for part of it. That is, not using purchase price as the final award criteria, as was done for this particular tender.