Croatian Post purchases e-bikes for mail deliveries
Croatia (Croatia)

**Background**

The European Commission recognises the importance of tackling negative impacts of urban freight transport, while respecting the freedom of national, regional and local governments to develop approaches locally. Initiative 33 of the White Paper identified the need for an increased policy attention to urban logistics. Moreover, the Commission's 2013 Communication “Together towards competitive and resource-efficient urban mobility” was accompanied by the Staff Working Document “A call to action on urban logistics”. A process is now underway to develop non-binding guidelines on urban logistics at the EU level.

**Procurement objectives**

Croatian Post, the national postal service in Croatia, launched a public tender in April 2015 to purchase 180 electric bicycles to replace an equal number of conventionally fuelled (combustion engine) scooters, which amounted to 2,200 units. The tender came as part of its involvement in the EU-funded PRO-E-BIKE project during which Croatian Post took part in a pilot scheme to see whether electric bicycles could replace scooters in deliveries. The testing period ran over a twelve month period (beginning in July 2014) with three e-bicycles (two producers), one e-tricycle and one e-scooter, and produced very positive results from users (staff from Croatian Post), citizens and the media.

Croatian Post based its decision to replace its scooters with e-bikes on a number of factors, including that electric bikes have a similar range to their scooters when charged, but can also be used when their battery runs out.

**Criteria used in the procurement process**

**Subject matter of the contract:** Procurement of bicycles with auxiliary electric motors, equipped with the proper accessories rear suspension bag, front bag and an instrument for measuring energy consumption.

**Technical specifications:** The tender requires a two-year guarantee and the batteries must have capacity for 800 re-charges (to reduce maintenance costs).

**Award criteria:** The contract was awarded on the basis of lowest price.

**Results**

Four bids were received following the publication of the call for tenders. The total investment was 492,000 euro, with 150,000 euro provided by the Croatian government’s Environment Protection and Energy Efficiency Fund, which subsidises part of the purchase costs for electric vehicles for individuals, companies and public organisations.

On 7 October 2015, on the symbolic occasion of World Post Day, the Croatian prime minister, Zoran Milanovic, officially unveiled the new e-bikes purchased by Croatian Post.

**Environmental impacts**

Cycling is an efficient way of using expensive and scarce space in urban areas, and is healthy, clean and inexpensive. It has enormous potential when we acknowledge that almost half of all car trips in cities are of less than five kilometres.

The informal meeting of EU ministers for Transport adopted a Declaration on Cycling as a climate friendly transport mode, in Luxembourg (October 2015).
In terms of the current case, the annual savings of 166,616 euro (1,249,617 Croatian Kuna) are expected (approximately 926 euro per scooter), and were calculated as follows by the Croatian Post:

- The purchase price of motor scooters was around 1,800 euro, of e-bikes between 2,000 and 2,600 euro and of quality e-scooter around 5,500 euro.
- The annual cost of maintaining 180 conventionally fuelled scooters is 143,113 euro (1,077,080 Kuna), and the annual cost of maintaining 180 e-bikes is 24,000 euro (180,000 Kuna).
- Furthermore, savings of nearly 47,000 euro will be made on motor fuel foregone, given that 180 conventional scooters spend fuel require 43,200 litres of fuel and 180 e-bikes require 43,875.00 kWh of energy.

Moreover, reductions in the level of noise pollution, in general, from the alternative use of e-bikes are also worth mentioning. Croatian Post concluded that e-bikes are a better solution for their transport needs than conventional scooters, which have a range of 25-40 kilometres. The e-bikes offer the same range, but when battery power is low, you can still ride the e-bike. Zeljka Fistek of EIHP, the Energy Institute Hrvoje Požar, the Croatian Energy Agency, leading the Pro-E-bike project said that “this replacement shows that support for electric vehicles and technology is making a difference in the marketplace for logistics and transportation”.

Lessons learned

- Croatian Post highlights the importance of the testing phase and that it be performed in accordance with the parameters of the business needs, followed by a detailed analysis and audit of the results.
- In addition to the environmental benefits of using e-bikes, they are also reported to be easy to use and maintain. At the moment, however, batteries operate at reduced capacity when they are subject to very low temperatures and/or snow-covered surfaces. This is why electric bikes are currently deployed on surfaces that are suitable for their movement and which are not so subject to limited conditions.

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For related information, please see European GPP criteria for Transport and the Technical Background Report.