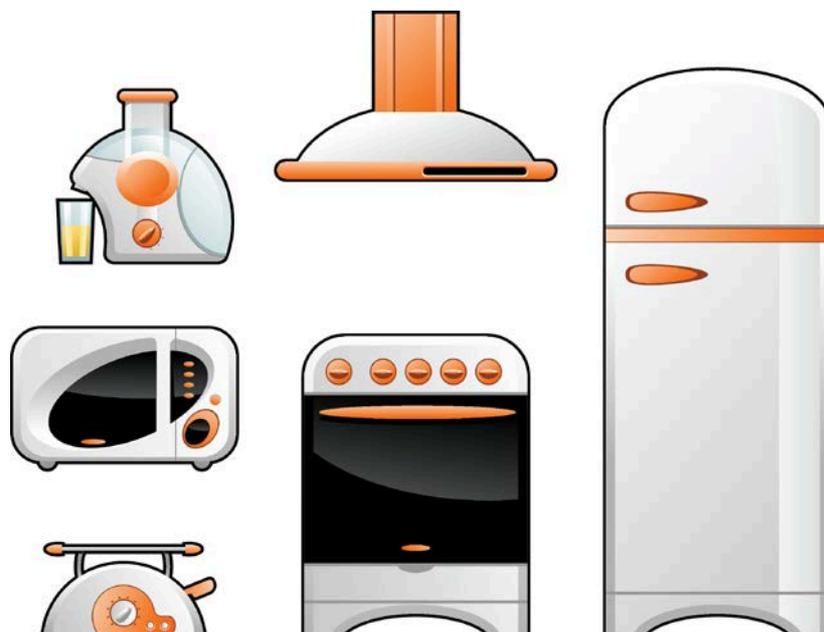




# Replacement with energy efficient white goods in public entities

Municipality of Roskilde introduced a model where schools, day nurseries, public canteens etc. can apply for a replacement of old white goods. The model is assumed to replace 300-400 units.

- application and calculation with total cost of ownership (TCO)
- Energy label requirements



## Standard product

- Existing white goods to be replaced is 10-15 years old in average

## GPP tender

- New white goods have upgraded energy labels

## Results

- 300-400 units will be replaced
- 20 MWh saved in TCO perspective
- 70 tonnes CO<sub>2</sub> reduced

## Introduction to case

### 1.1 SUMMARY

In 2016 Municipality of Roskilde introduced a model where schools, day nurseries, public canteens etc. could apply for replacement of old white goods financed by grants from the municipality's energy saving program. Public entities can apply to an announced deadline ones per year, and the Municipality then proceed with the procurement. The model is assumed to replace 300-400 units in the period 2016-2018.

### 1.3 CASE CONTENT AND CASE ISSUE

The Municipality of Roskilde decided to reserve grants for energy saving activities in terms of replacing old white goods in public entities for a yearly sum of 133.000 €. The grant period is assumed renewed in 2017 and 2018 with a total sum of 400.000 €.

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In many schools, canteens and day nurseries, the white goods may be 10-15 years old – or even older. The energy consumption from these appliances is poor and inefficient. By introducing this grant for energy saving which public entities can apply for, the Municipality of Roskilde provide replacement of the most energy-inefficient units among schools etc.

The procurement emphasised minimum requirements to energy labelling and requested information and calculation of TCO (total cost of ownership).

### 1.4 SOLUTIONS APPLIED

The procurement is organized in a model, where the municipal procurement office registers and approves the achieved applications and then announces an open tender for all products to be replaced. The interested suppliers can provide offers on one- or several particular appliances for replacement. When offers are accepted, the selected suppliers replace the products directly at the public entity.

## Contract tendered

- a) Subject matter: Procurement of white goods
- b) Value of the contract: 400.000 € in total
- c) Type of procedure: Open tender
- d) Type of contract: the tender comprised supply of white goods
- e) Nature of contract: Direct contract based on a list of appliances for replacement
- f) Division in lots: None

## Procurement objectives

The objective with the white goods procurement was to replace old white goods in public entities with new and more energy-efficient white goods.

The procurement should also acknowledge TCO in the tender. It was assured require interested suppliers to fill in data of energy consumption together with unit cost.

## Procurement approach

The procurement was an open tender comprising supply and installation of equipment.

The tender used standard eligible criteria for financial, legal and technical capacity and all suppliers registered in ESPD (EU registration format) can apply.

The award criteria were:

Price in a TCO perspective (10 years of operation default)

Evaluation of price is assessed as lowest price for a product with similar functions as the replaced product.

Minimum criteria for level of energy label were stipulated for relevant product categories.

Beside product name and price, suppliers should provide details on energy consumption, water consumption, capacity and size.

## Criteria development

The procurement was prepared with an initial assessment of the market for energy efficient white goods appliances (washing machines, dish washers, refrigerators, freezers, tumble dryers). A memo was conducted and concludes that it is possible to define minimum requirement for energy labelling for several product categories without affecting competition on unit prices.



## Results

	Investment volume (€)	Energy savings (€/year)	CO <sub>2</sub> reduction (tCO <sub>2e</sub> /year)	Payback time (€)
Lot	400.000	4.000 €	7	Not relevant

The yearly energy savings from a total of approx. 400 appliances is approx. 20 MWh and related energy cost saving for of the new appliances are approx. 4.000 €/year. Average CO<sub>2</sub> is approx. 0,35 kg. CO<sub>2</sub> per kWh (Official data for DK CO<sub>2</sub> emission from 1 kWh vary from 0,35 – 0,5 kg depending on particular year). Total CO<sub>2</sub> reductions from total replacement of 400 appliances are approx. 70 tonnes CO<sub>2</sub> in a lifetime perspective of 10 years.

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## Lessons learned

This case can be replicated to all areas with old white goods.

## Contact

Ronni K. Andersen, email: [ronnika@roskilde.dk](mailto:ronnika@roskilde.dk)

## 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<sub>2</sub> reductions.– [www.primes-eu.net](http://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<sub>2</sub> savings. Moreover, GPP 2020 is running a capacity building programme that includes trainings and exchange. – [www.gpp2020.eu](http://www.gpp2020.eu)



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