PRIMES
Green Public Procurement

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

Ventilation and cooling system in Hospital Laundry

- A new energy efficient ventilation system has a pay back time of approx 5,5 years
- The system also improved the work environment by reducing dust and provide more stable room temerature
- Potential suppliers were invited to inspect the site and propose own energyefficient design within a fixed total price

Provided by Koncern Service Vask Holbæk

Standard product / conventional tender

- Standard ventilation without comfort cooling

GPP (PRIMES) tender

- Energy efficient ventilation system and comfort cooling

Estimated Savings per year

- 163.620 kWh
- 22.279 €
- 59 tonnes CO_2

This template is developed by GPP 2020 and modified by PRIMES.
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GPP 2020 procurement for a low-carbon economy

Introduction to case

1.1 PITCH-TALK – SUMMARY

The corporate laundry service located at the Hospital of Holbaek, has replaced two older ventilation systems with new and updated energy efficient ventilation systems. Furthermore, comfort cooling is established in certain areas of the laundry in order to ensure an optimal work environment. The new application is installed during December 2015 and will provide an estimated energy reductions of 163.620 kWh/year and 22.279 €/year in savings.

1.2 CASE CONTENT AND ISSUE

Two older ventilation systems at the Corporate Laundry service at Holbaek Hospital were outdated and needed a replacement. An initial technology assessment determined it was a good business case to replace the units with a new energy efficient system and at same time integrate it with a comfort cooling system. The comfort cooling should assure an improved comfort temperature for employees in certain areas with heat exposure. The new system should also assure heat recover of excess airflows from tumblers, finishers and rollers.

The tender has followed a restricted procedure with selected suppliers with expertise in ventilation systems.

The tender documents contained a layout with details of the current technical setup, including all relevant energy data and technical dimensions. An external energy consultant conducted the overview. Bidders were urged to choose a system solution they considered most advantageous according to the selection criteria which was TCO.

1.3 SOLUTIONS APPLIED

The applied solution is an energy efficient ventilation system integrated with a comfort cooling system.

Tender features

The Hospital and an external energy consultant in cooperation conducted the tender titled “Total Contract on ventilation and cooling at the laundry of Hospital Holbaek” with Region Zealand’s procurement division as execution entity for the tender process.

- The amount of the contract was fixed to 126.000€ based on an Initial market assessment
- The tender was restricted to four invited suppliers. The contract comprises the total implementation of the ventilation and cooling system
- Bidders had the option to inspect the laundry site and apply for more detailed technical information
- The tender was amended with appendixes with baseline energy consumption and a feasibility study to assure bidders were informed of the technical state

- The timetable was narrowed to an implementation phase below 1,5 month. Thereafter there will be an operation phase of one year, where supplier has the opportunity to fine-tune and monitor the system to assure achievement of the promised TCO performance.

Procurement objectives

The objective of the procurement was to improve the laundry service with an energy efficient ventilation system to achieve energy and economic savings. Furthermore, the new ventilation system should improve work environment in certain areas by introducing a better comfort cooling achieved from the new ventilation concept.

An innovative element of the procurement is that the requested technical solution was defined only in general terms but with a fixed total cost and an emphasized weight on return of investment in terms of energy efficient performance (performance based specification). That makes it possible for suppliers to be innovative and use own expertise to propose an optimal technical solution to the site.

Procurement approach

The procurement approach is specific for the particular laundry service.

To reduce execution time the tender was conducted as a restricted tender. It was assessed and decided that invitation of four technical suppliers that fully complies with the scope, context and expectations to the tender.

To assure best possible basis for designing a system solution for the new ventilation and comfort cooling system, the suppliers were invited to site inspection and provided with detailed technical data of energy consumption and process data.

The selection criteria were formulated as open and functional specific criteria to achieve best possible solution for a predefined amount. The selection criteria were:
• The new system may not reduce the laundry's production capacity and production time
• Achieve most possible heat recover
• Provide minimal maintenance and maintenance costs
• The possibility of bypassing the heat recovery function
• The system has to have enough capacity to manage greater variation in excess air from tumbler, finisher and roller.
• Provide full documentation of realized energy savings and operating / maintenance costs.

The selection criteria assured competition between bidders on energy saving in a total cost perspective and assured at the same time, that the solution does not affect the production capacity and other related functions.

The incoming proposals were evaluated according to the criteria and the proposal with the best total cost business case in relation to energy saving and maintenance cost.

The payment structure of the contract was divided into a first and second payment. The first payment was to be paid after approval of the implemented recovery system and other payment after first year operation period from commissioning. The objective of this settlement form was to ensure total contractor's commitment to truly achieve the calculated energy savings and projected maintenance costs.

Criteria development

Laundry management in corporation with an energy consultant developed the criteria on the basis of an initial feasibility study that determined the potentials. In this case It was not found applicable to make references to technical standards.

Results

	Energy	CO_2	Financial
Savings with new ventilation and comfort cooling system per year compared to baseline	163.620 kWh/year	59 tonnes/year	22.279 €/year

- **Note:** comparison table with the benchmark tender can not be provided as it would be very complicated to compare old solution with this new one.

Lessons learned

The initial feasibility study of energy saving potential and potential technical models were very useful for both management and bidders to assure a common preference for performance expectations and lay-out.

To assure that implemented solution also perform what promised, final payment is processed after one years operation and documentation of performance. This model assures that supplier incorporate adequate time to adjusting the system during operation.

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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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