

Market engagement

ZERO EMISSION TRANSPORT – CRAFT AND FACILITY
MANAGEMENT SERVICES

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1. Method

1.1. The reason for focusing on craft and facility management services

Mapping¹ has shown that procurement of craft (e.g. building, construction and maintenance) and facility management (e.g. cleaning, window cleaning, graffiti cleaning) services is responsible for around half of the CO₂-emission in Copenhagen in category 3². We assume it will be possible to address the issues regarding CO₂-emission related to the embedded transport in the same way in several of the sub-categories under craft and facility management services.

We will only look at services categories where we think there is a relatively large amount of embedded transportation and where the suppliers use their own vehicles and where we assume that it will be possible to use emission free vehicles like for examples bikes, scooters, EVs or in other ways lower the emission. We will focus on the categories where some sort of vehicle is needed in order to fulfil the task. Therefore, we have not included consultant services like interpreters or advisors because they in most cases are located in or near Copenhagen, may be using public transportation or bike, and are not dependant on bringing an amount of equipment to fulfil their task.

To sum up, we will choose the ones where:

1. The suppliers may have to visit several different locations during a work day
2. A vehicle or mode of transportation of some sort is needed to fulfil the task
3. The nature of the service and requirements for equipment makes it possible to substitute the vehicles used with ZEVs (Zero Emission Vehicle) (i.e. that they do not have to carry a heavy load).

| Category | Number of suppliers | Number of departments | Number of departments per supplier | Number of invoices | Annual spend (million DKK) |
|-------------------|---------------------|-----------------------|------------------------------------|--------------------|----------------------------|
| Electricians | 329 | 575 | 1.7 | 9.148 | 116 |
| Plumbers | 279 | 401 | 1.4 | 6.425 | 61 |
| Cleaning services | 326 | 723 | 2.2 | 8.945 | 75 |

¹ <http://www.buyzet.eu/wp-content/uploads/2017/11/Copenhagen-BuyZET-Transportation-Mapping-Report.pdf>

² Category 3 refers to the delivery of goods and services to the City of Copenhagen, as opposed to city-owned vehicles (category 1), or transportation services (category 2). See the mapping report above for more information on this categorisation.

| | | | | | |
|-------------------|----|-----|-----|-------|---|
| Window cleaning | 85 | 353 | 4.2 | 2.655 | 6 |
| Graffiti cleaning | 2 | 8 | 4 | 90 | 7 |

The table above shows key figures on each of the subcategories within the craft and facility management services. Even though there were no contracts on most of the areas when the mapping was done, it shows the procurement volume of each subcategory. Each of these subcategories represents only a relatively small amount of the overall category, but we believe that the finding can be replicated to many of the other subcategories in these procurement areas.

In order to identify the subcategories, we will be focussing on, we have selected from the table key subcategories, using the parameters listed above.

- Parameter 1: The number of departments per supplier gives us an indication of how much the supplier has to drive around the city. Window cleaning, graffiti cleaning and cleaning services have the highest scores on this parameter.
- Parameter 2: All the key subcategories need a vehicle to fulfil their task.
- Parameter 3: Electricians, cleaning services and window cleaning is expected to the smallest load to carry.

From these evaluations, we have chosen to focus on electricians, cleaning services, and window cleaning for further investigation. Graffiti cleaning was omitted because they need to bring equipment and have an engine running when cleaning the different locations.

Today we have made tenders on all the areas chosen, which will make it easier in the future to make criteria and demands for the suppliers that are winning the contracts.

1.2. Market research and engagement

1.2.1 Case studies

Cases and experience from the City of Copenhagen's tenders shows, that there are already craftsman and facility management services that uses ZEVs – in some cases regardless of it is being requested by the contracting authority. These cases act as inspiration on how we can implement criteria in tenders or in other ways promote zero emission transportation during our contract with service suppliers.

One of the good cases is Logik&Co, a Danish craftsman service company which offers services ranging from small to total enterprises. Their hallmark is that they use bikes whenever possible. They have built specially designed cargo bikes which are used in their daily work. For larger enterprises they use trucks for the delivery of the building material needed for the task, but all the employees will use bikes for their transportation. This

case shows that it is possible to use bicycles or alternative vehicles even within areas where there is a need for transporting heavy material. Logik&Co do not yet have any contracts with the City of Copenhagen.

Another example is the facility management service provided to the City of Copenhagen by AFA JCDecaux, that is the supplier of digital street furniture in the City of Copenhagen. They are in charge of the delivery and the daily maintenance of the equipment. In the tender process award criteria were applied on energy and environment. One of the elements that gave AFA JCDecaux a high score was that they offered to use electric bikes in the city centre and electric cars in the rest of the city during their daily maintenance of the equipment. This case shows that it is possible to award criteria for energy and environment regarding transportation in a tender.

The City of Copenhagen has a framework agreement on occasional gifts. During the market engagement process it became clear that some of the relevant suppliers in the market were using bikes for the delivery of goods like wine and flowers whenever the weather was suitable. This case shows that through market engagement it can be assessed whether is possible to set minimum criteria regarding the use of bicycles for delivery during the contract.

The facility management company Coor is maintaining technical installations in approximately 300 of the City of Copenhagen's buildings. In the tender, there were no criteria on zero emission transportation, since it was estimated that too few suppliers could deliver zero emission transportation, hence making the tender more expensive. Although not rewarded in the tender, the winning company is now servicing the city's technical installations using ZEVs. This case shows that it can be economically feasible to use ZEV regardless whether it gives you a competitive advantage in tenders.

1.2.2 Interviews with suppliers

In order to obtain knowledge and generate ideas for tender criteria, a series of in-depth interviews with suppliers were undertaken. The suppliers were chosen from the three selected subcategories of services. Within each subcategory, one or two suppliers were chosen for interviews. In the results section below is a summary of the interviews with the suppliers.

2. Results and conclusions

2.1. Summary of interviews

2.1.1 Cleaning services

The City of Copenhagen's cleaning service was interviewed: In the City of Copenhagen most of the cleaning service is in-house divided into different sections. However, from 2020 the two sections will merge. One of the sections is eco-labelled, the other is not.



Most of the cleaning personal only have one location or a few locations where they do the cleaning. They go directly from their home to the location. If they are working in more than one location, they have bikes available or they have access to use public transportation. They have all their equipment placed at the location, and hence no need for transporting any equipment. The cleaning is done during office hours to make the cleaning visible to the employees working at the sites cleaned.

A few of the staff are cleaning at institutions outside Copenhagen and they have cars available. Not all of these cars are electric due to the electric car's limited range, but they comply with the criteria the ecolabel for cleaning services sets regarding transportation. District managers visit several locations in a day. They are merely using electric cars because of the City of Copenhagen's policy of buying only electric cars for our own fleet.

Delivery of supplies for cleaning is done by the supplier of cleaning materials. They deliver the materials on-site in large volumes. These volumes are too big for most sites, so the district managers are redistributing some of the materials.

The cleaning sections mainly use their cars during office hours. They have therefore been looking into whether it would be possible to share the cars with other departments who need cars during the evening or at night time. They have concluded, though, that the cars typically need to be specialized for the task, which makes it difficult to share the cars between providers of two different tasks.

2.1.2 Window cleaning

The City of Copenhagen's provider of window cleaning was interviewed: The provider of window cleaning is a big company, offering a variety of facility management services. The provider is about to have their environmental management system certified by the ISO 14.001 standard.

The employees are typically driving from their home directly to the address where they work. The company is allocating the task to minimize the driving distance from the employee's home to the working sites. Furthermore, they drive in pairs, hence reducing the number of kilometres driven. The pair of employees driving together, either work at the same location simultaneously or they split up and work on two separate locations, which are near to each other. The frequency of window cleaning at a typical location (e.g. two times a year) means that it does not make any sense to keep equipment at the locations. Also, only a minimum of equipment is needed for window cleaning, so the equipment is easily brought along. Except for when ladders are needed, equipment can be brought along by bike or public transportation.

The employees are only allowed to use the company's cars during work. The company's current policy is to buy A+ cars. They are looking into when it will be possible to start using electric cars. At the moment they assess, that the driving range of an electric car is too small for their driving needs.

The company encounters difficulties in planning their driving optimally, because many customers request the window cleaning service at specific times, and that certain times are very popular among most customers.

2.1.1 Electricians

One of the City of Copenhagen's providers of electrician services was interviewed: The provider is a medium sized company providing only electrician services. The company is trying to minimise the driving, by keeping a given employee in a small geographical area during a workday. Also, they typically have two men in each car and thereby reducing the amount driven. Nevertheless, most days, the cars have to travel to the main office either at the beginning or the end of a workday to pick up equipment.

The company is in the process of making a transition to electrical cars. The incentive for making the transition is mostly the desire to have a green company profile. They are leasing the cars in order to be sure of the expenses of using an electric car. Another reason for leasing is that it makes it easier to substitute the cars with newer models, hence keeping up with the technical development of electric cars. According to the company, the total cost of using an electrical car is roughly the same as diesel fuelled car.

The company has tried to use electric scooters. The incentives for using scooters were to avoid congestion and difficulties finding a parking spot. Using scooters was abandoned again, since they were not allowed to be parked in the same places as a bicycle, and therefore did not solve the problem with finding parking spots. That led to the company trying out electric cargo bikes. The quality of the first ones they used was too bad, but they are now awaiting delivery of new cargo bikes. They are planning to use the bikes in the central and most dense area of the city, because of difficulties to find parking spots. This is the main reason for trying out the cargo bikes.

2.2. Conclusions

The case studies and dialogue conducted shows that it is possible to provide craft and facility services using emission free vehicles or other modes of transportation with no emissions. Most of the services examined in this report can be (and in some cases are already being) delivered by electric car, bicycle and by public transportation.

As a contracting body, we can promote emission free transportation through both the description of the task and criteria. Provided you do not describe the task too restrictively, you avoid creating barriers for the service provider to optimise their solutions and minimise their driving. And if you match the criteria on transportation to the specific task, it is possible to request zero emission transportation.

The dialogue also shows, that in most cases, the cost of use of zero emission transportation is approximately the same as using fossil fuelled vehicles.

The study shows, that the incitement for using zero emission vehicles or other emission free modes of transportation, mainly stems from two needs: One is the desire to make a difference and making sure that the business you conduct is done in a sustainable way. The other is a more practical desire to avoid congestion and scarcity of parking spots.

The dialogue shows that a barrier for the supplier for using ZEV is that their customers do not request it. Hence this is not an incentive for the supplier to make a shift to ZEV. Making a transition to ZEVs is more difficult for an SME than a large company due to the proportional transitional cost as well as the difference size of customer portfolio.

2.3. Next steps

The next steps for the City of Copenhagen in this project will be to formulate generic task descriptions as well as ideas for criteria that can act as an inspiration in future tenders.

The generic task descriptions will focus on leaving room for the suppliers to optimise the way they solve the task. This could for example be to flexible on service frequencies, time, duration, as well as dividing a task into smaller geographical areas. The criteria will focus on various emission free modes of transportation, criteria to minimize the kilometres driven, as well as criteria making data on transportation available.



About BuyZET

BuyZET stands for BuyZET ‘Procurement of innovative solutions for zero emission urban delivery of goods and services’.

The BuyZET project will develop innovative procurement plans to help the participating cities achieve their goals of zero emission urban delivery of goods and services.

Partners Logos



Contact details

Reach us:

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