Background and description of the good practice
Kalmar County consists of a lot of farm land and a lot of livestock. Also the municipality of Kalmar and the isle of Öland are very popular holiday resorts. The city of Kalmar was e.g. voted to the best Swedish summer city for the third time. But at the same time the Baltic Sea suffers from over-fertilization. Especially the surplus of phosphorous is a problem. For example, on the isle of Öland, located near the cost, there are 2,5 cows per inhabitant. If the farmers wish to by more animals they have to buy more land. This is a serious obstacle. Kalmar County represents 2,4 % of all the inhabitants in Sweden but stands for 25 % of chicken production and 12 % of milk production in the country making the farming a very important industry. Our politicians have recognized that biogas/bio–methane can be one of the solutions because it not only reduces the metane leaks from the farms but it also delivers a renewable fuel to our vehicles and digestate that can be certified as an ecological fertilizer.

The public procurement is generally made for 8 + 2 years. Since the latest procurement was made in 2007, it was time for a new procurement. It covers all the 12 municipalities in the County and is administrated by the Regional Public Transport Administration whereas the final decisions are made by the politicians in the County Council, head of the transport administration.

Aims and objectives of this action
Kalmar County has a target to become a fossil fuel free county in 2030 with no net greenhouse gas emissions. The target has been set by the Climate Commission consisting of the County Administrative Board, the Regional Council of Kalmar County as well as different private and public organisations. To reach the target, several sub targets have been set. One of them is that all transports paid by public means shall be fossil fuel free in 2020. Since there are very good preconditions to produce biogas especially from manure and many farmers are interested to produce biogas, the decision was made to go for biogas or bio-methane as the first option were this was possible.

The decision resulted in 60 % bio-methane in the public procurement as the only alternative. This was possible since it was presented as a special geographical requirement. The consequence was that bio-methane was only evaluated in relation to the price and not in comparison with other fuels. The total procurement consisted of approx. 400 vehicles and it was worth about 500 million euros.
Public procurement of buses in Kalmar County, Sweden

Technical and/or Financial Implementation
The requirements that were set by the Regional Public Transport Authority and the politicians at the County Administrative Board were that
- the procurement should result in 100% renewables
- in a life cycle perspective the reduction of greenhouse gas emissions should be 50% compared to fossil fuels
- on the main distances (E22) and in the city traffic there shall be only one option i.e. biomethane
- for the rest of the traffic there will be five alternatives fuels i.e. biomethane, sustainable synthetic diesel, green electricity, RME and ethanol

To give even smaller, local companies a possibility to offer, the procurement was divided in 60 parcels of different size from 1 vehicle to 35 vehicles. Thirty companies gave an offer. The negotiations took place in February 2016 and the choice of the companies were made in April 2016. The contracts were signed in June 2016 and the new busses entered the traffic 21st August 2017. The five municipalities that installed bus depots were Kalmar, Mörbylåga, Mönsterås, Oskarshamn and Västervik and a new biomethane plant, More Biogas Småland AB built to produce biomethane for the BioCNG busses started production in spring 2014.

Results and contribution from BiogasAction
The obtained results are:
- The greenhouse gas emissions from busses will be reduced with 75% 
- The reduction of costs is 2%

The assumption from the beginning was that the costs would increase with 3-4% but the costs were the same for the County Council and lower for the municipalities due to coordination with school buses. The winners in this procurement were the municipalities.

Contribution from the stakeholder forum, Biogas Southeast:
Already in 2011, the regional biomethane network (Biogas Sydost) started to prepare a regional strategy and action plan for biomethane in the three counties Kalmar, Kronoberg and Blekinge together with the three County Administrative Boards that are in charge of the regional climate targets. One of the targets that we agreed upon was that the Regional Public Transport Administration, also a member in the network, would choose biomethane as the first priority in the public procurement. We made pre-feasibility studies and mapped the potential and locations for biomethane production and presented facts and figures for the decision makers. Especially the Regional County Council, another member in the network and in the regional Climate Commission, was engaged in this process. These kind of procurements are very long processes!

The Partners and Stakeholders
Description of project consortium
The main stakeholders were the Regional Public Transport Authority and the politicians at the County Administrative Board but many members of the Biogas Sydost (Biogas Southeast) were involved in this procurement. See contribution above.
**How this Action could be Replicated**

The procurement has gained a lot of attention in Sweden but also in many other countries of the European Union and even the Government of Japan. It should be possible to be replicated but maybe it should be adjusted to suit the local conditions in each country/region.

**Lessons Learnt**

BioCNG buses are profitable when the contracts are made on long term i.e. ten years and if the busses run many miles. In other case the BioCNG busses will be more expensive due to higher capital costs and higher service costs.

Find out more about this and other BiogasAction topics at: [http://biogasaction.eu/](http://biogasaction.eu/)

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