



# City of Lund

## **100% fossil fuel free Skåne 2020**

Lund has signed the challenge "100% fossil fuel free Skåne 2020", this challenge is run by Klimatsamverkan Skåne. The purpose of the challenge is to get municipalities, organizations, business and individuals in Skåne to reduce their impact on the climate. The goal of the challenge is: no fossil energy use in buildings, no use of fossil electricity and no fossil fuel in transport.

To reach the target the municipality has developed an action plan. The action plan contains an inventory of the current state showing the share of the energy use that is fossil fuel free today, a list of actions with timetables and responsible departments and a description of the monitoring of the work and the share of fossil fuels.

The vehicles owned by the municipality must get extra focus to reach the target that the municipal organization shall be fossil fuel free. Because of this some of the actions in this area have been further developed and presented as vehicle guidelines. Both increased efficiency and a change of fuels is needed to realize the target.

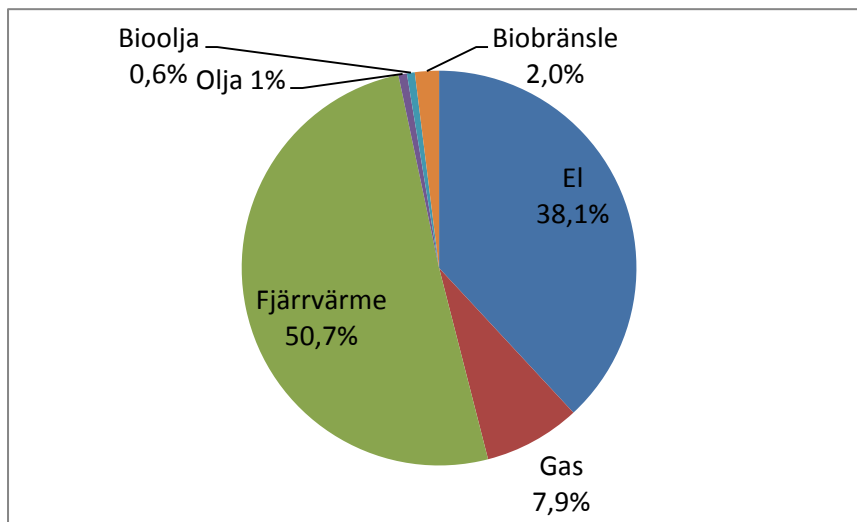
## **Current state in the municipality**

The bought electricity carries the eco label Bra Miljöval wind power and is fossil fuel free. Since 2014 all the gas that the municipality buys for heating of buildings has been green gas. All the oil used in municipal buildings since 2014 is bio-oil, which in this case means RME; a renewable fuel.

### **Properties owned by the municipality**

Distribution of the total energy consumption in municipal-owned properties (Lundafastigheter) is shown in the diagram below. The heating of buildings prevent mostly by district heating. In 2013 the municipal-owned properties used approximately 98 000 MWh.



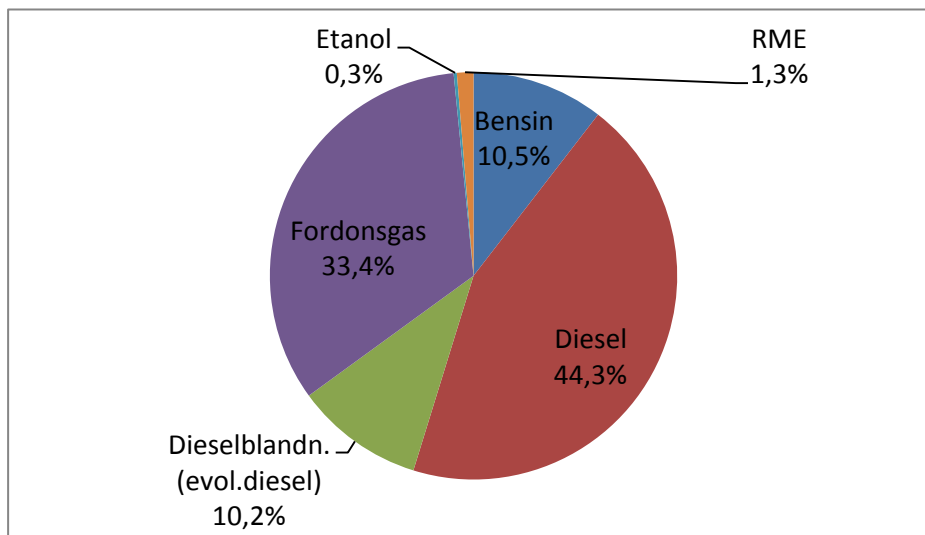


**Figure 1. The distribution of different types of energy carriers for heating and electricity consumption in buildings owned by Lundafastigheter (2013). (Electricity 38.1%, natural gas 7.9%, district heating 50.7 %, bio oil 0.6%, oil 1 %, bio fuel 2.0 %.)**

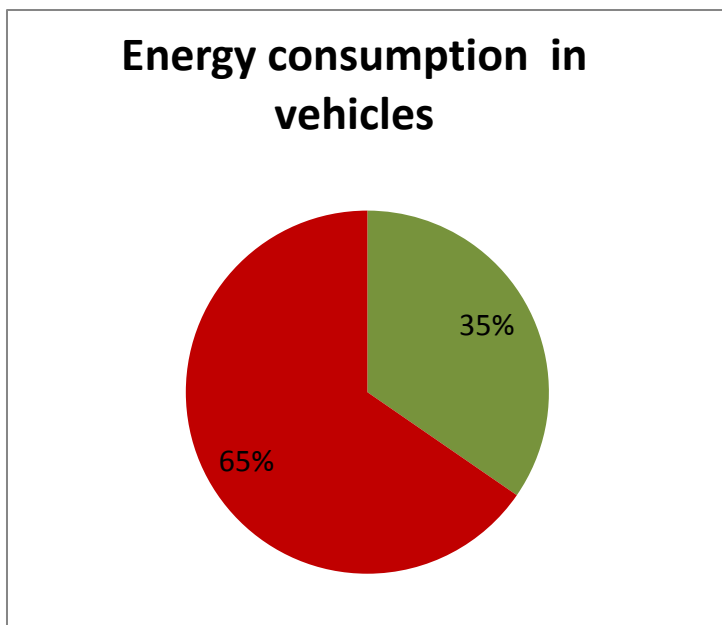
### Örtoftaverket

In April 2014 a new combined heat and power plant was inaugurated in Örtofta. Örtofta is located in Eslöv municipality, but the district heating network is corporate to Lund, Eslöv and Lomma. The new production helps to significantly reduce the share of fossil fuels in district heating. Krafringen has no target for when the district heating production will be fossil-free, but the share of renewables is increasing continuously and will according to current plans be 98 per cent renewable in 2020. Although the district heating is produced with a small proportion of fossil fuels it, from a primary energy perspective, still is preferable to electric heating.

### The municipality's vehicle-fleet



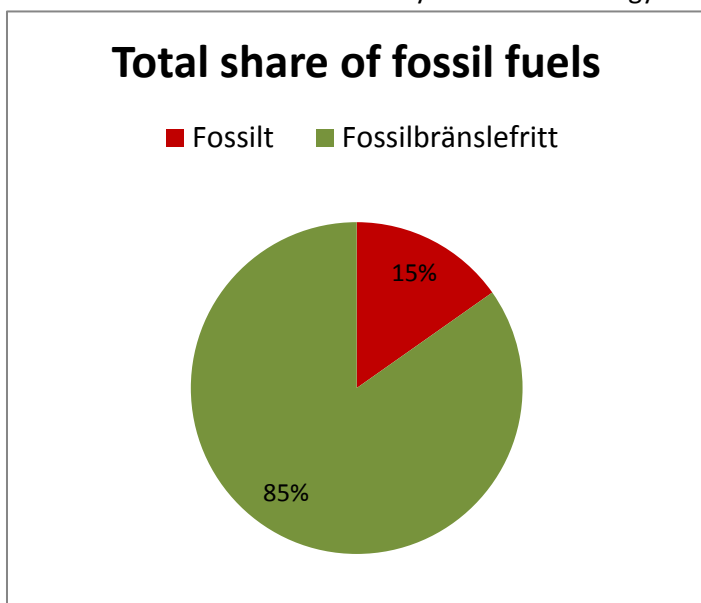
**Figure 2. The share of different fuels in the municipal vehicle fleet in 2013, based on energy content. (Ethanol 0.3%, RME 1.3%, petrol 10.5%, diesel 44.3%, blend of fossil and bio diesel 10.2%, CNG 33.4%)**



**Figure 3.** The distribution of renewable (green) and fossil fuel (red) energy in the municipal vehicle fleet (2013).

### Total degree of independence of fossil fuels

The survey in the action plan comprises 128 700 MWh. A weighing of the energy used during 2013 in our properties (98 000 MWh whereof 90% fossil fuel free) other electricity use (16 500 MWh, 100 % fossil fuel free) vehicles (12 370 MWh whereof 35 % fossil fuel free) and for flight and train travels (994 MWh whereof 15 % fossil fuel free) and for use of private cars in duty (889 MWh whereof 8 % fossil fuel free) shows that the municipal organization was 85 % fossil fuel free in 2013. Leased property, bought transport services and travel by bike, walking, taxi or local public transport is not included sine it is not monitored by distance or energy use.



**Figure 4.** Total share of fossil fuels (red) and fossil fuel free (green), based on energy content, 2013.

The largest amounts of fossil energy in 2013 came from:

Fossil energy in district heating: **≈ 9900 MWh fossil energy**

The municipality's vehicle fleet: **≈ 7970 MWh fossil energy**

Flights: **≈ 830 MWh fossil energy**

Driving private cars in duty: **≈ 820 MWh fossil energy**

## Actions

Parts of actions are directly taken from the energy plan and other measures are clearly linked to the action in the energy plan. For the municipal vehicle fleet the majority of actions are aggregated in vehicle guidelines, which are currently processed politically.

Suggested action:

- More renewable energy in district heating
- Keep better track of leased properties
- Working according to the vehicle guidelines
- Exchange plan for vehicles
- Heavy vehicles, machines and construction
- Travel-free meetings and change of transport mode
- Reduce driving in your own car
- 100% green gas

## Complete list of actions

Connection to the decided regulatory documents	Actions	Responsibility	Timetable
	Requiring that green electricity is used in district heating production in a level equivalent to municipal use.	The Service Committee	
	Signing a declaration of intent with Krafringen with the main focus that Lund Municipality, as a major customer, should be able to buy fossil fuel free district heating to their businesses by 2020.	The City Executive Board	2016
	Developing a survey of the premises that the municipality leases with consideration to the business, landlord, surface, heating and if the operational electricity are included in the rent or not.	All committees who rents premises from external landlords.	2015
	Require that the landlord should annually provide information on energy consumption in the rental contracts and that renewable electricity purchased, in case of a renewal of a rental contracts.	All committees who rents premises from external landlords.	Ongoing

Energy plan 3.B.4, 3.C.1, 4.A.1	Have a dialogue on a regular basis with relevant landlords regarding the conversion to renewable energy sources for heating.	All committees who rents premises from external landlords.	Ongoing
3.C.6	Increasing coordination and review to recover accessible residual heating within Lund municipality.	Kraftringen (main responsibility), The Planning and Building Committee	Ongoing
<b>Connection to the decided regulatory documents</b>	<b>Actions</b>	<b>Responsibility</b>	<b>Timetable</b>
	Ensure that the guidelines for travel and transport in the service are followed. Ensure that communication about the guidelines takes place on a regular basis and make it easier for employees to deselect to travel by air.	All committees	Ongoing
	Investments in education and information regarding travel-free meetings.	All committees	2015-2016
	The municipality will require 100% green gas in the next fuel procurement.	The City Executive Board	2016
	In the procurement of transportation it should be required that the statistical data concerning the fuel quantities are reported.	All committees	Ongoing
<b>Action number in the Energy plan</b>	<b>Actions</b>	<b>Responsibility</b>	<b>Timetable</b>
1.A.1	Lund municipality formulates environmental requirements for heavy vehicles.	The City Executive Board	2015-2016
1.A.2	Lund municipality formulates a long-term plan for the public procurement of environmentally-friendly and energy-effective machinery. A generous amount of time will be allotted for the conversion to environmentally-friendly machinery and the goal is to cut emissions of greenhouse gases by half.	The City Executive Board	2014-2015
1.A.3	When procuring transport tenders, Lund municipality should promote the use of environmentally-friendly and energy-effective heavy vehicles instead of conventional fossil fueled vehicles. As a first step (phase 1), suitable incentives may be used. In the long run (phase 2), the municipality will place clear demands that exclude vehicles with low environmental performance.	The City Executive Board, The Service Committee, The Technical Committee.	2014-2015 (Phase 1), 2016-2017 (Phase 2)