

Sustainable Energy Action Plan for Lund



“How we fulfil the
Covenant of Mayors”

Adopted 2010

The documentation showing how the City of Lund fulfils the Covenant of Mayors has been compiled by Linda Birkedal, environmental strategist, the City Office for environmental strategy, public health and safety, spring 2010.

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“How we fulfil the Covenant of Mayors”



Annika Annerby Jansson signs the Covenant of Mayors at a ceremony in Linköping at the same time as several other municipalities.

Annika Annerby Jansson, signed the Covenant of Mayors on 10 November 2009. This is an agreement launched by the European Commission which commits signatories to go further than the EU in the climate and energy field. This means, among other things, that the City of Lund has undertaken to draw up an action plan to reduce emissions of greenhouse gases by more than 20 per cent between 1990 and 2020 within a year of signing.

Lund's action plan is based on the measures planned in, among other things, LundaMaTs, the municipal comprehensive plan, LundaEko and the municipal environmental management system. Account is also taken of expected changes in the surrounding world, such as Region Skåne's work to make public transport free of fossil fuels by 2020. The starting point has been to examine whether the measures already decided on, as well as proposed measures, are sufficient to fulfil our commitment in accordance with the Covenant of Mayors. There are differences in the limits between the city's goals and those of the Covenant of Mayors, but the conclusion is that Lund's ambitions and plans are sufficient to fulfil the commitment if the plans are fully implemented. Thanks to the planned measures, Lund, in accordance with the limits of the Covenant of Mayors, will reduce its emissions by 40 per cent by 2020. Lund will also continue to strengthen its climate work within the framework of the environmental management system.

Climate goals in the EU



The EU's goal is to reduce carbon dioxide emissions by 20 per cent by 2020 at the latest by increasing energy efficiency by 20 per cent and ensuring that 20 per cent of the energy mix consists of renewable fuels. Negotiations on how much different countries will contribute to this have resulted in Sweden being set a target to produce at least 49 per cent of its energy from renewable fuels by 2020. Sweden has also, on its own initiative, adopted the ambitious goal of reducing carbon dioxide emissions by at least 40 per cent, of which at least 27 per cent must be achieved within the country's borders. This means that Lund can expect a national policy that will provide support for surpassing EU goals.

The City of Lund works towards zero emissions

On 26 August 2010, Lund adopted the goal cutting in half greenhouse gas emissions by 2020, taking emissions for 1990 as the baseline. This goal does not have the same limits as the Covenant of Mayors, partly because agricultural emissions are included in the City of Lund's goal. Lund's goal is, nevertheless, sufficient to achieve the ambitious level contained in the Covenant of Mayors. Lund's long-term goals are for emissions to be close to zero by 2050.

The above goals apply to the City of Lund as a geographical area, but in order to achieve them, a reduction in emissions from municipal activities will be required, of course. This can be achieved through more efficient energy use and a reduction in the use of fossil fuels

A fossil-fuel-free city

On 13 January 2010, the city executive board decided to accept a challenge from Region Skåne to become a fossil-fuel-free city by 2020. This means that the city will work to ensure electricity, heat and transport in its own organisation will be based on renewable energy. An important stage in this work is to follow the action plan for clean vehicles adopted in 2010.



Climate work in Lund from 1990 to today

Transport

Within the transport sector, LundaMaTs, a strategy for a sustainable transport system in the City of Lund, has contributed to ensuring that the annual distance driven per inhabitant has not increased between 2000 and 2009. The equivalent trend in the neighbouring cities of Malmö and Helsingborg saw an increase of 31 per cent and 12 per cent respectively. Bikes dominate Lund, with as many as 43 per cent of trips within the city being made by bike. LundaMaTs contains both infrastructural measures and soft measures, such as information activities.

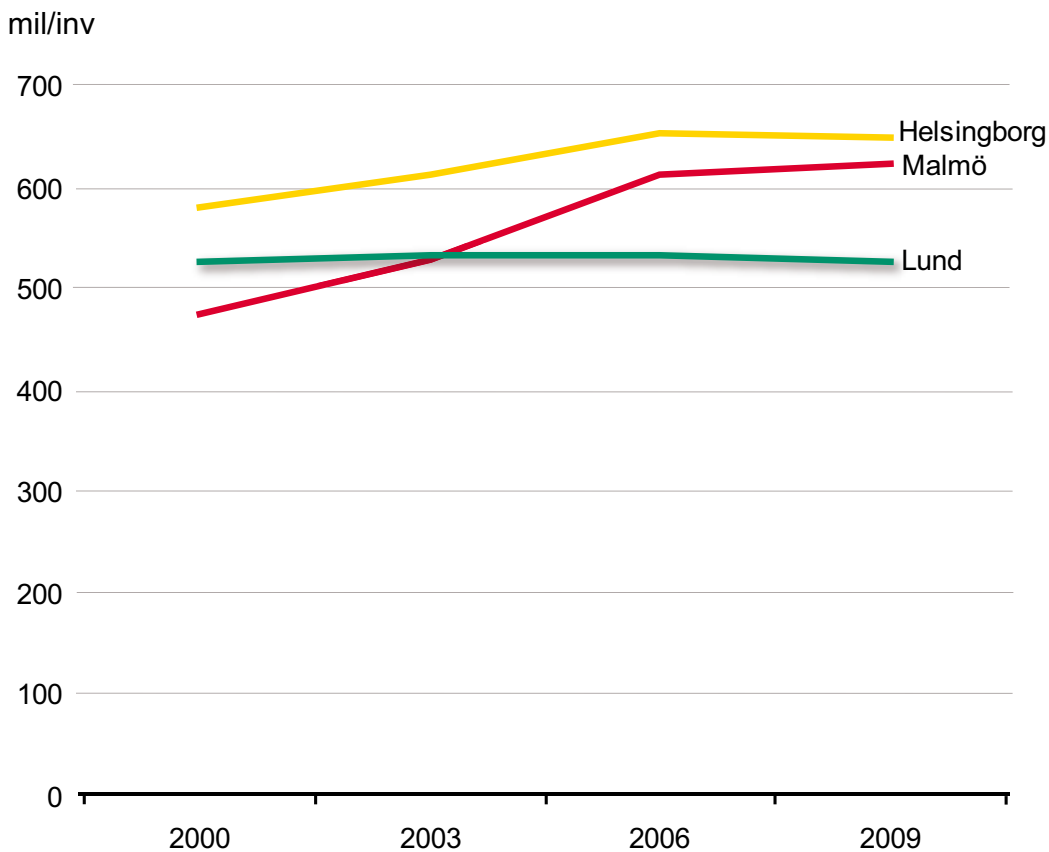


Figure 1. The distance driven per inhabitant in Lund. The distance driven per inhabitant in Lund has remained relatively constant over the last ten years, while it has increased dramatically in the neighbouring cities of Malmö and Helsingborg. Mil=10 km.

In Lund, there are currently two vehicle gas filling stations for private individuals, a filling station for regional buses and one for refuse vehicles. In Dalby, there is now also a vehicle gas filling station for private individuals. Vehicle gas in Lund consists of around 40–50 per cent renewable fuel. For heavy vehicles, it is possible to fill up with RME (rapeseed methyl ester or biodiesel) in Lund. RME is produced locally on farms in Eslöv and filling stations can be found at Gastelyckan in Lund, among other places.

Despite the huge benefit of LundaMaTs, the transport sector is the area where achieving the agreed goals has proved to be most difficult.



Heating

In 1990, almost half of all district heating in Lund was produced using geothermal sources, i.e. renewable energy. Electric boilers, and a small proportion of oil and natural gas, were also part of the production. This mix produced relatively low emissions of greenhouse gases. Since then, district-heating production has increased, while the extraction of energy from the four geothermal drill holes has somewhat stagnated. A project on deep geothermals was started in 2002, which, had it succeeded, would have increased the proportion of renewable energy used in district-heating production significantly. Unfortunately, the project failed on account of water levels being too low. This led to a significant increase in the use of natural gas and carbon dioxide from district-heating emissions in 2005. This increasing trend has now turned, as natural gas is being gradually replaced by renewable fuels and wastewater in the district heating system. Major initiatives have included new pellet boilers at Gunnesboverket in Lund, wastewater deliveries from the sugar mill in Örtofta, straw and wood chip-based heat deliveries from estates along the district-heating network and the use of bio-oil. The transition to renewable fuel is part of Lunds Energikoncernen's work to become climate neutral. High oil prices and local energy advice have resulted in oil seldom being used for heating in private households, and the municipal property company LKF replaced its final oil-fired boiler in 2010. The expansion of district heating in Lund over the last 20 years has led to huge reductions in emissions, as old oil-fired boilers in domestic properties are replaced by district heating.

Our own organisation

The City of Lund has also worked to reduce climate impact from our own organisation. Examples of important initiatives include the fact that, since 1998, the city has only purchased eco-labelled electricity and that energy use in the city's stock of property fell by 17 per cent after the city signed an agreement with a company to implement energy efficiencies (Energy Performance Contracting).

Environmental investment programmes

It has also been possible to achieve a lot thanks to government grants within the LIP and Klimp environmental investment programmes, the aim of which has been to part-finance local climate investments. In the three investment programmes for which Lund has issued final accounts, an environmental benefit of 18,600 tons of carbon dioxide equivalents has been achieved. The individual measure in the programmes that led to the largest reduction in greenhouse gas emissions was the combining of the district-heating network in Lund and the neighbouring municipality of Eslöv, as this made it possible to make use of the waste heat from the sugar mill in Örtofta.

Programme	Grant (SEK millions)	Environmentally related investments (SEK millions)	Reduction in greenhouse gas (CO ₂ equiv. tons/year)
LIP 1998	111	474	5,033
LIP 2001	56	146	5,292
Klimp 2004–2008	18	105	8,593
Klimp 2008–2012	28	86	7,896

Table 1. Climate investment programme (Klimp) and Local investment programme (LIP) in Lund. Final accounts have not been released for Klimp 2008–2012, which means that the figures will be revised.

Historical development of emissions from 1990 to 2008

Since 1990, the population of Lund increased by 24 per cent. During the same period, emissions of greenhouse gases fell by two per cent and energy use increased by nine per cent in accordance with the limits of the Covenant of Mayors. The increase is due to the trend in the transport sector, where emissions have risen by 36 per cent since 1990. After 1990, when emissions of carbon dioxide from heat production in Lund were historically low, emissions from heating increased as the population grew, as greater demand for district heating was met using the fossil fuel natural gas. For ten years the local energy company Lunds Energikoncernen has been working to replace natural gas with renewable fuels, which, in combination with other measures, has led to the upward trend in emissions being reversed, with a reduction of 26 per cent. Energy use per inhabitant has fallen eleven per cent during the period and carbon dioxide emissions per inhabitant have fallen by 20 per cent.

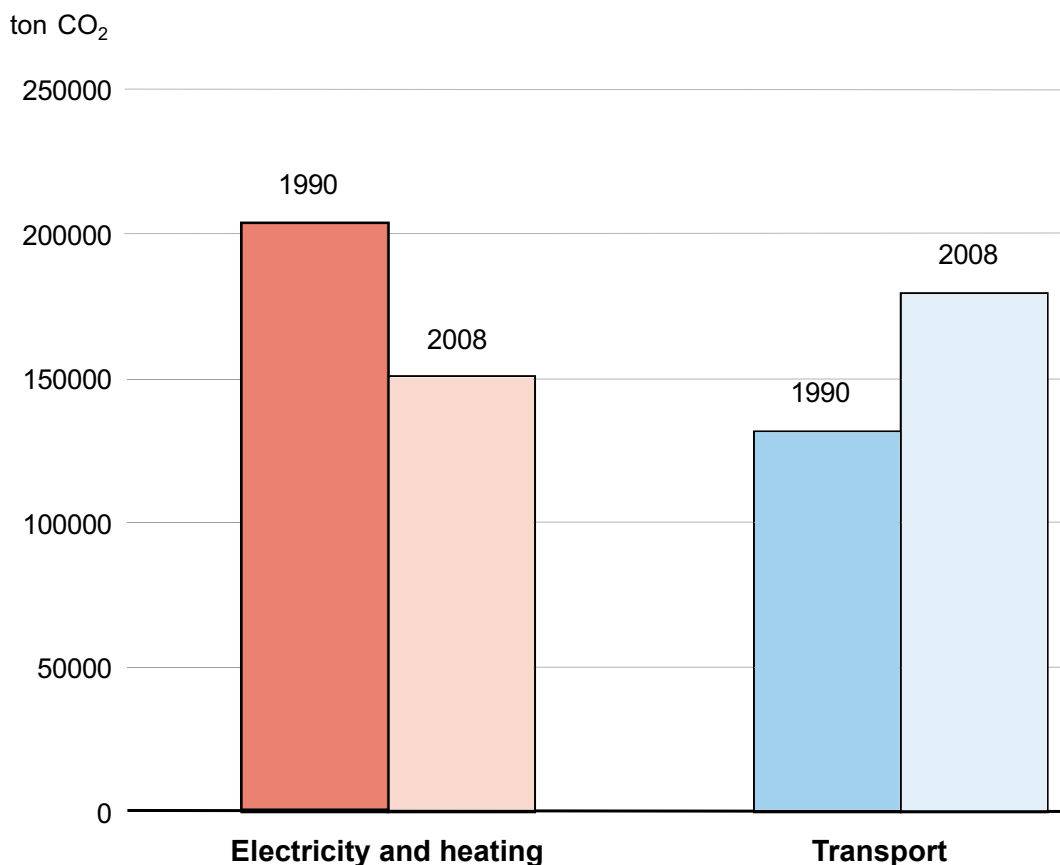


Figure 2. Carbon dioxide emissions in tons for 1990 and 2008. Emissions from the transport sector have increased dramatically, but those from electricity and heating have fallen slightly more. During the same period, the population of Lund increased by 24 per cent.

Sustainable energy action plan

The role of the city

The city has a significant influence over the local energy system, and affects it through several different roles. These are:

- Majority owner of Lunds Energikoncernen AB. The city therefore has huge scope to influence the production of electricity and district heating.
- Authority. The city has planning legislation and environmental legislation that can be used to guide development towards an energy-efficient social structure with low emissions of greenhouse gases.
- Owner and user of vehicles, premises and homes. The city can act as an environmentally-aware consumer.
- Provider of information and collaborative partner. The municipality can promote energy efficiency and innovations in the energy field among citizens, companies and other players in society.

In certain issues, the city has no authority. This is true, for instance, of energy taxes and the trading system for emissions rights. Decisions relating to these are taken at national or EU level.

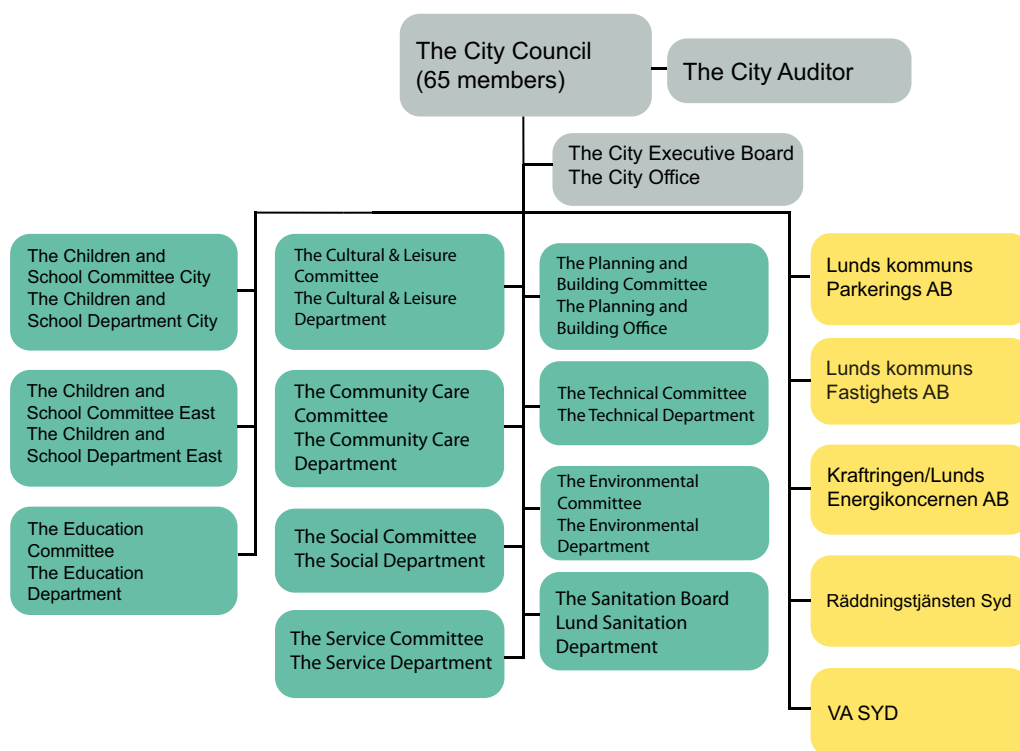


Figure 3. The City of Lund organisation. Each committee and board has individual responsibility for producing action plans in order to achieve local climate goals within their own area of activity. The city executive board coordinates the work.

Organisation

The City of Lund is governed by elected politicians through the city council, the city executive board and 11 committees. The city also owns all or parts of a number of public-benefit companies, whose board members consist of politicians. The

parking company and the property company LKF is wholly-owned, while the city is the majority owner of Lunds Energikoncernen AB. VA SYD, which supplies drinking water and cleans drains in Lund, Malmö and Burlöv, and Räddningstjänst Syd, Fire Rescue Service, are local federations controlled by politicians.

The City of Lund uses its environmental management work to continuously improve measures against climate change. All committees and boards have individual responsibility for producing action plans in order to achieve local climate goals. The city executive board provides support for this work.

Follow-up

The climate goals are followed up within the framework of the environmental management work, where each committee and board has its own specific areas of responsibility. The results are compiled and communicated annually by the city executive board. The annual reporting in accordance with the Covenant of Mayors is also the responsibility of the city executive board.

Energy consultant

From 2011, there will be an energy consultant, financed by government funds, who will offer advice on energy efficiency concerning the city's properties and vehicles. The energy consultant will also be responsible for following up on energy use within the city organisation.

Follow-up area	Responsibility
Clean vehicles	The Service Committee
Energy use in organisation	Energy consultant (org. location not established)
Transport and official travel	Relevant committee and board
Energy use LKF	LKF
Emissions in the geographical area	The City Executive Board
Reporting as per Covenant of Mayors	The City Executive Board
Compilation and communication	The City Executive Board

Table 2. Responsibility for follow-up.

Klimatkommunerna

Klimatkommunerna (the climate municipalities) is an association of Swedish municipalities, county councils and regions working actively on local climate work. Klimatkommunerna started as a network on 1 January 2003, but became an association in November 2008. The City of Lund has been involved since the start, and is also host to Klimatkommunerna's secretariat. Klimatkommunerna's overall aim is to reduce emissions of greenhouse gases in Sweden.

The association will support municipalities who want to work on the climate issue and will promote national climate work by emphasising the opportunities, obstacles and driving forces with a bearing on the results of the work. Klimatkommunerna will spread information on and experience of local climate work, and increase knowledge of the climate problem. Klimatkommunerna will also work for international cooperation and maintain contact with similar networks in other countries. Klimatkommunerna is a *Supporting Structure* for the Covenant of Mayors, and provides support for municipalities that have signed the agreement.



Measures up to 2020

The city is working hard towards energy efficiency and to reduce the quantity of fossil fuel consumed within its own organisation. This concerns both properties and transport. The city is also creating conditions for other players to reduce their emissions of greenhouse gases, among other things by using its position as a majority owner of Lunds Energikoncernen to influence the fuel mix in the district-heating system towards a higher proportion of renewable sources. The city is also taking responsibility for the climate in its role as a community planner, for instance, by creating the conditions for a sustainable transport system, establishing wind power and energy-efficient construction. The city is an active dialogue and cooperative partner that contributes to citizens and locally active companies working towards a more stable climate. Through a partnership with Lund University, the city is making use of and developing innovations and ideas in the climate and energy field.

Below are the measures that, taken together, can reduce emissions of carbon dioxide by over 127,000 tons and energy use by at least 48 GWh. These measures may also increase the production of renewable energy by 942 GWh.

Buildings



JönsOls

From 2011, the city will have two energy consultants, one focusing on private individuals and companies, and one working internally within the city organisation. Directly measuring the environmental effect of advice is not easy, and it is difficult to distinguish between the environmental benefit of an inventory of potential efficiency measures and the environmental benefit of the investment itself. For this reason, the entire effect is listed under “Efficiencies in properties” in table 3 when it comes to the city’s own buildings. The city has already had good experience of working with Energy Performance Contracting (EPC), and it is likely that this form of agreement will be concluded again.

A new city building, Kristallen, will be constructed between 2011 and 2012. The building will meet the Green Building requirements and the aim is to achieve class

A in accordance with the SYD environmental construction programme. The aim for energy consumption is 40 kWh/m².

The City of Lund has been granted government support within Klimp in order to introduce individual measurement of hot water use in

apartments owned by the city residential property company LKF. When constructing new homes, LKF must, as a minimum, ensure that an energy performance of 100 kWh per square metre (LOA+BOA) is achieved.

SABO's environmental prize awarded to LKF

In 2009, LKF was awarded SABO's environmental prize for the company's ambitious work on reducing the environmental impact from transport. Among the company's measures, the jury mentioned the fact that all personnel who drive a lot for business were offered training in environmental driving, that LKF uses car pools, and that the company has acquired box bikes, bus passes and company bikes for personnel.

Private and state property owners

The city has a good relationship with several property owners, who have devised ambitious programmes for energy efficiency and reduced emissions. Akademiska Hus, which is landlord to the University of Lund, aims to reduce the amount of purchased energy by 40 per cent before 2025, taking 2000 as the base year. Their follow-up shows that they have already achieved half of their target. Vasakronan AB is working on green lease agreements, where the company, along with the tenant, sets environmental goals. Vasakronan's overall aim is to reduce energy use by at least 3 per cent a year, which from 2010 to 2020 represents 26 per cent less energy.

Efficiency measures undertaken by other players are reported under energy advice in the table and constitute a rough, cautious estimate. It is reasonable to assume that oil will no longer be used for heating in 2020, which energy advice can contribute towards achieving. The entire environmental benefit of the phasing out of oil is reported under energy consultant in table 3.

Akademiska Hus awarded prize

Akademiska Hus has been awarded the 2009 SolEl programme prize the Solar Cell System of the Year for its installation at Ekologihuset at Lund University. Ekologihuset produces 70 MWh of electricity a year.

Vasakronan selected as climate model

During 2009, Vasakronan was selected as one of 20 Swedish companies to sign the UN's Caring for Climate initiative. Above all, this emphasised the successful work of reducing carbon dioxide emissions. The emissions have been reduced by 90 per cent by replacing oil with district heating and building in a climate-smart manner.

Period	What	Cost	Responsibility	Environmental benefit per year
2010-2014	Energy consultant for private individuals and companies	SEK 2,000,000 € 210,000	The Planning and Building Committee	- 5,000 MWh 7,000 tons CO ₂ (6,000 tons from oil)
2010-2012	Inventory of properties	SEK 1,500,000 € 158,000	The Service Committee	
2011-2013	Efficiency in properties	SEK 90,000,000 € 9,474,000	The Service Committee	- 10,000 MWh 1,000 tons CO ₂
2011-2014	Energy consultant within city	SEK 1,540,000 € 162 000	The City Executive Board	
2010-2011	Individual measurement of hot water	SEK 18,000,000 € 1,895,000	LKF	- 1,650 MWh 275 ton CO ₂
2010-	Max 100 kWh/square metre in new production	no data	LKF	
2011-2012	Energy-efficient new city building	no data	The Service Committee	
2010-2020	3 per cent annual energy efficiency	-	Vasakronan AB	-6,000 MWh
2010-2020	Efficiency and renewable production	-	Akademiska hus	- 20,000 MWh 1,550 ton CO ₂
Total		SEK113,040,000 € 11,899,000		- 42,650 MWh 9,825 tons CO₂

Table 3. Buildings. Planned measures in city-owned properties, and in some private and government premises.

Local production of electricity, heating and biofuel



Solar cells on “Ekologihuset”

The City of Lund, along with its neighbouring municipalities in LEADER Lundaland, will work for increased production and use of biogas. With the help of a biogas coach, who connects up people with the raw materials and ideas with people with technical know-how, the biogas in Lundaland project will lead to five concrete biogas businesses. In addition to this, plans have advanced for a biogas facility outside Dalby, which has been affected by delays to the schedule, but which is expected to be finished by 2014. During 2010, Lunds Energi has invested in the Källby sewage treatment works, which has allowed biogas produced from waste sludge to be sent out into the natural gas network. In 2009, Lunds Energikoncernen sold 17.4 GWh of vehicle gas. The facility at Källby provides 7 GWh of biogas, which means that 40 per cent of the vehicle gas will be from a renewable resource.

Period	What	Cost	Responsibility	Environmental benefit per year
2011–2012	Biogas in Lundaland	SEK 1,650,000 € 174,000	The City Executive Board	
2013–2014 (Stage 1)	Biofuel-powered combined Heat and Power Plant	Around SEK 2 billion € 210,000,000	Lunds Energi	550 GWh heat 300 GWh electricity 50,000 tons CO ₂
2014	Biogas plant	SEK 100,000,000 € 10,600,000	Lunds Energi	60 GWh fuel 17,600 ton CO ₂
2010	Biogas from the sewage treatment works	20,000,000 kr € 2,100,000	VA SYD&Lunds Energi	7 GWh fuel 1,700 ton CO ₂
By 2012	Solar heat at apartment block	no data	LKF	
2010	Solar cells in Södra Sandby	–	Skånska Energi	10 MWh electricity
2010–2020	Part-owner of wind-power plant	no data	LKF	90 MWh electricity
Total		SEK 2,157,350,000 € 218,134,000		917,100 MWh 69,300 tons CO₂

Table 4. Local production. Planned production of renewable electricity, heating and vehicle fuel.

A biofuel-powered combined heat and power plant is being planned by Lunds Energikoncernen, with construction taking place in the neighbouring municipality of Eslöv. As the district-heating networks in the two municipalities are linked, the use of natural gas in district-heating production in Lund can be reduced once the plant is finished. The permit process is ongoing. The plan is for the plant to be built in stages, with the first stage ready by 2013/2014. The plant is expected to be fuelled by hay, wood chips, recycled chips and peat. The biofuel-powered combined heat and power plant will produce 550 GWh of heat and 300 GWh of electricity, some of which will replace production based on natural gas that currently takes place in Lund.

LKF will invest in more solar energy over the next few years. At least one new solar-heating plant will be built for an apartment block outside the district-heating area, and LKF has submitted an application for funding for a solar-power plant at the county council in Skåne county. LKF is also the part-owner of a wind-power plant that provides 90 MWh per year. There are other parties in the city building solar cells, including Skånska Energi.

Transport

LundaMaTs is the City of Lund's strategy for a sustainable transport system by 2030. LundaMaTs contains 42 project proposals within the fields of community planning, pedestrian, bike, and car traffic, public transport and business transport. Calculations of what it would cost to implement the various project proposals have been carried out. The potential reduction in emissions has also been calculated. The cost calculations have been made for the entire LundaMaTs period, which runs until 2030, and are therefore not reported in the table. In total, the project costs are estimated at SEK 75–80 million, the investment costs at between SEK 1 and 3 billion, and increased operating costs to at between SEK 5–10 million per year. The measures proposed for car traffic and public transport would have the greatest impact on emissions. The majority of the reduction in emissions reported for public transport comes from switching to renewable fuels for both city and regional traffic. Region Skåne, which operates regional public transport, has a vision to be fossil-fuel-free by 2020.



Period	What	Cost	Responsibility	Environmental benefit per year
2010–2013	Pedestrian traffic LundaMaTs	no data	The Technical Committee and the Planning and Building Committee	20 tons CO ₂
2010–2013	Bike traffic LundaMaTs	no data	The Technical Committee and the Planning and Building Committee	340 tons CO ₂
2010–2013	Public transport LundaMaTs	no data	The Technical Committee and the Planning and Building Committee & Region Skåne	2,780 tons CO ₂
2010–2013	Car traffic LundaMaTs	no data	The Technical Committee and the Planning and Building Committee	7,100 tons CO ₂
2010–2013	Businesses LundaMaTs	no data	The Technical Committee and the Planning and Building Committee	1,000 tons CO ₂
2014–2020	LundaMaTs	no data	The Technical Committee and the Planning and Building Committee	14,000 tons CO ₂
Total		SEK ~1 billion € ~100,000,000		25,240 tons CO₂

Table 5. Transport. Planned measures to reduce emissions from road traffic. All measures have been assessed for cost, distributed by project cost and investment cost, but it is difficult to determine what costs will be payable prior to 2013 and so they are only reported in an approximate total here.

Charging posts

Lunds Energikoncernen has so far erected three charging posts for electric vehicles in Lund. The aim is to demonstrate to consumers and the market availability of the distribution network and charging facilities so that when the vehicles appear on the market, this will not present an obstacle. The electric motor is much more efficient than the combustion engine, because it would only require around 20 per cent (approximately 10 TWh) of the energy currently used for private car transport in Sweden (approximately 45 TWh) if all these vehicles were to be placed by chargeable hybrids.

Physical planning



The directive for Lund's municipal comprehensive plan states that the plan must contribute to reducing emissions of greenhouse gases by 85 per cent by the year 2050. This can be achieved through a dense urban structure, planning for district heating and special public transport lanes. In connection with the municipal comprehensive plan, a wind plan has also been produced, which includes a contingency plan for production of 50 GWh of wind power.

LundaMaTs, Lund's strategy for a sustainable transport system, contains several proposed measures within community planning. The city has published a book about community planning to reduce car use (*Bilsnål samhällsplanering*), which offers guidance on how local infrastructure can be planned to reduce car traffic.

The SYD environmental construction programme is aimed at building contractors who want to build on city land. Various concrete measures for sustainable construction are proposed in the programme. The energy requirements are divided into three different classes: A (best option), B (good choice), C (base level). Building contractors can choose between class A and B themselves, or the municipality may demand class A or B in order to demonstrate excellence when exploiting specific areas. In order to build on municipal land, it is necessary to fulfil at least class C. All classes in the programme involve tougher requirements than the national Boverkets Byggregler (BBR) regulations. Ongoing work is intended to ensure that the programme follows the trend within sustainable construction, with the result that requirements will be gradually tightened in future versions of the programme.

The City of Lund is particularly looking to focus investment in sustainable town planning in the development area of Brunnskög. This will be constructed to meet a number of functions, and the idea is for a tram line to link the area with the research village Ideon, the university hospital and the central station. The city has applied for funds from the Delegation for Sustainable Cities to build in a sustainable way in Brunnskög.

Period	What	Cost	Responsibility	Environmental benefit per year
2010	Wind plan	no data	The Planning and Building Committee	25 GWh electricity 2,500 tons CO ₂
2010–2013	Community planning LundaMaTs	no data	The Technical Committee and the Planning and Building Committee	1,440 tons CO ₂
2010–2050	Municipal comprehensive plan with climate perspective	no data	The Planning and Building Committee	
2010 –	The Syd environmental construction programme	no data	The Planning and Building Committee	
2010–	Sustainable Brunnskög	SEK 250,000,000 € 26,000,000	The Planning and Building Committee	-5,208 MWh 12,500 tons CO ₂
Total		SEK 250,000,000 € 26,000,000		25,000 MWh -5,208 MWh 16,440 tons CO₂

Table 6. Physical planning. In order to create the conditions for a society with low emissions of greenhouse gases, the city is working on a clear climate perspective, both in individual development areas and in general planning.

Procurement and purchasing

The city organisation is a huge consumer which accounts for a significant amount of energy use in Lund. That is why it is working on environmentally-adapted procurement for two reasons: because of the direct environmental benefit and to be a role model. According to a decision of the city council in the LundaEko environmental management programme, the city will only purchase eco-labelled electricity. The city's guidelines for travel and transport are based on a hierarchy where walking, bikes and virtual meetings are followed by trains and buses. Only when these options do not work can car or plane travel be considered. The travel agent agreement supports this policy and facilitates follow-up.

According to the Action Plan for Clean Vehicles, adopted by the city executive board in 2010, vehicles that can run on biogas, RME or electricity should be chosen when new purchases are made, and any vehicle that can run on renewable fuel should do so. Exceptions to these rules are few and far between.

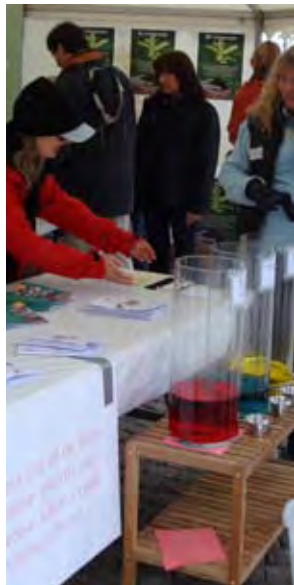
The City has purchased training in environmental driving, which has been popular with the staff at the sanitation department, among others.



Period	What	Cost	Responsibility	Environmental benefit per year
2010–2020	Eco-labelled electricity	SEK 170,000 per year € 18,000 per year	The City Executive Board	4,000 tons CO ₂
2010–2020	Environmentally-adapted city vehicles	SEK ~80,000 per year € ~8,000 per year	The Service Committee, LKF and the City Executive Board	2,000 tons CO ₂
2010–2020	Guidelines for travel and transport	no data	All committees and boards	
Total		SEK 2,500,000 € 260,000		6,000 tons CO₂

Table 7. Procurement and purchasing. The city's measures for reducing climate impact from its own consumption.

Cooperation with citizens and other players



There are many parties outside the city organisation that have an impact on emissions of greenhouse gases. The City of Lund has therefore cooperated with other players for a long time. Dialogue with citizens and information on climate change has been and remains an important part of the work of the city. Particularly in the field of transport, this work has been intensive, involving knocking on thousands of doors in Lund, bike surveys and exhibitions and events on the streets and in marketplaces. An important lesson that has helped to develop work is that people are more open to behavioural changes that lead to environmental improvements if they can also see benefits in terms of their own finances or health.

Youngsters are an important target group for the city's cooperation on climate issues. Since 1998, the city has held Ungdomsforum för Agenda 21 (Youth Forum for Agenda 21), where young people can express their environmental commitment in both their leisure and school time. For instance, they organised an international climate conference for young people, Klimatting Ett (Climate Gathering), in autumn 2009. Through Rework the World, the city also invests in sustainable jobs for young people.

For Lund, the city of ideas, it is important to make use of knowledge and innovations from Lund University in the work to halt climate change. Specific projects have long been associated with academic researchers. From 2010, the partnership on climate issues has been formalised and one person will be employed to promote cooperation between the city and the university. Within RCE Skåne (Regional Centre of Expertise on Education for Sustainable Development), the city is also cooperating with Lund University in order to slow climate change.

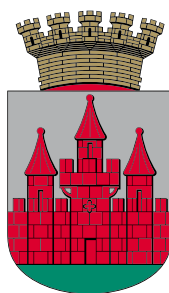
Lund's business community is also interested in climate issues. Around ten companies are active in the climate alliance that the city initiated in 2009. Within the climate alliance, companies exchange excellent examples and know-how, and the hope is that concrete cooperation on, for instance, biogas production may arise.

Period	What	Responsibility	Cost
2010–2013	Cooperation with Lund University	The City Executive Board and Lund University	SEK 1,200,000 +LU SEK1 billion €232,000
2010–	The climate and energy alliance	The City Executive Board	SEK 130,000 €14,000
2010–	Youth Forum	The Culture & Leisure Committee	
2010	Rework the World – sustainable jobs for young people	The City Executive Board	
2010–2020	Citizen dialogue and information	The City Executive Board and the Technical Committee etc.	
2010–	Host of Klimatkommunerna	The City Executive Board	SEK1,330,000 €246,000
Total			SEK 1,330,000 € 246,000

Outlook for 2050

The city is striving for zero emissions by 2050. The concrete measures to be taken after 2020 to achieve this goal have not been determined, but a climate survey from 2008 described various scenarios within the energy, transport and agricultural sector. The conclusion is that new technology, increased use of renewable energy and reduced demand for transport, among other things, will all be required to reduce emissions by 85 per cent. The greatest challenge is in the agricultural sector, which is not part of the Covenant of Mayors. The survey also points to the scope for carbon dioxide storage within the city's boundaries, but confirms that it will take some time before this becomes relevant in Lund. This survey has been used as the basis for the city's new municipal comprehensive plan.





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