

BLICC #3 SWEDEN

ENERGY EFFICIENCY
RENEWABLE ENERGY
REDUCED TRANSPORTATION



BOSTADS AB POSEIDON
FORTUM VÄRME
THE LFV GROUP, SWEDISH AIRPORTS
LÄNSFÖRSÄKRINGAR
MKB FASTIGHETS AB
NCC CONSTRUCTION SWEDEN AB
SMHI
STATOIL
STENA METALL
VASAKRONAN

Business Leaders Initiative on Climate Change

Report 3: Climate change: adaptation and growth

BLICC Projektgrupp

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BLICC consists of: Bostads AB Poseidon, Fortum Värme jointly owned by the City of Stockholm, The LFV Group, Länsförsäkringar, MKB Fastighets AB, NCC Construction Sweden AB, SL, SMHI, Stena Metall, Statoil and Vasakronan. BLICC is coordinated by Respect.

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Respect is based on a vision of sustainable business. From

respect
SUSTAINABLE BUSINESS

2000 Respect has been developing and running international business initiatives such as the Business Leaders Initiative on Climate Change and the Business Leaders Initiative on Human Rights. Together with the UN Global Compact, Respect also moderates Respect Table, a forum for progressive business leaders who want to promote sustainable business through positive action.

www.respecteurope.com

Climate Change: an executive challenge

Not only do our living conditions change when the climate changes – our economic conditions change too. A new report from the Association of British Insurers shows that insurance costs for weather-related catastrophes in the world increased fivefold during the years 1990-2004 compared to 1970-1990. Costs may increase even further – instead of a gradual change, we could pass a threshold after which climate change accelerates rapidly. This is obviously a business situation our companies want to prevent.

The rapidly increasing price of fossil fuels provides further inducement to reduce our greenhouse gas emissions. The question is not whether the business world can afford to engage in emission reduction, but if we can afford not to. The longer we wait, the more drastic actions will be required and the dearer it will be. If we start early, we can instead create competitive advantages for Swedish

industry, in the short and long terms. A significant commitment to technology which reduces carbon emissions creates a positive growth spiral.

What is needed is international agreement, national climate goals and political bipartisanship – and also a business community that takes active responsibility to reduce its impact on the climate.

The question of our impact on the climate is too important to be relegated to working groups distant from company management and the board room. Those companies that regard the actual handling of climate-related issues as of central importance to a company's development have the issue high on the agenda in the board and management group.

GOTHENBURG – MALMÖ – NORRKÖPING – STOCKHOLM, JUNE 2006



ANDERS SÖDERMAN
CEO, Bostads AB Poseidon



ANDERS EGELRUD
CEO, Fortum Värme samägt med
Stockholms stad



LARS REKKE
DG, LFV (Luftfartsverket)



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JOAKIM SÄLL
CEO, Swedish Statoil



HÅKAN BRYNGELSON,
CEO, Vasakronan



About BLICC

BLICC (Business Leaders Initiative on Climate Change) is a program for businesses from different industries which take responsibility for their climate impact and work to lessen their dependence on fossil fuels.

BLICC's goal is to address the issue of climate change and reduce carbon dioxide emissions through practical and proactive work that also strengthens the companies.

Each BLICC company calculates and reports its carbon dioxide emissions. This year, several companies can report significant emission reductions. LFV has also pioneered the way by taking the decision to be climate neutral and work towards zero net GHG emissions.

BACKGROUND

The initiative for BLICC was taken in 2000 when a handful of company leaders from, among others, DHL, IKEA and the Body Shop identified climate as one of the greatest challenges for industry. The then EU Environment Commissioner Margot Wallström participated actively.

With BLICC for profitable climate work

The BLICC House project is a more extensive project which was begun during the year. In this project, BLICC collects its best examples of how to reduce energy use – actions which all property owners can take today.

The commercial benefits of BLICC are:

- Reduced energy use and therefore lower costs
- Systematic and effective process for conversion to renewable energy
- Potential to offer products and services which are developed taking into account their climate impact
- An effective and successful platform for public and political communications
- Strengthened brand name

“Industry’s work with energy efficiency, conversion to renewable energy, transportation and in improving the environmental impact of product life cycles is fundamental for achieving our climate targets. Voluntary initiatives such as the business network BLICC are of great importance in driving development forward.”

EXTRACT FROM SWEDISH GOVERNMENT’S CLIMATE PROPOSAL.





We can influence the future - the knowledge exists

Maria Ågren, DG SMHI

For a large part of the earth's population, an altered climate means radically altered living conditions. The situation appears less dramatic in Sweden, but increased temperatures and precipitation can nevertheless have far-reaching consequences on infrastructure, water resources, agriculture, forestry and plant and animal life.

The pictures of the future that researchers put forward these days vary considerably regarding how much warming we can expect. However all scenarios follow the same pattern – a strong upward curve for increasing temperatures. There are many factors in a complicated relationship which affect developments, but the emissions we create today and in the future will be decisive.

The UN Panel on Climate Change points to an average global warming of between 1.5 and 5.8 Celsius degrees by the year 2100. In Sweden's case, warming above the global average is anticipated.

Climate researchers have begun interesting studies with so-called “stabilising scenarios”. The analyses show what the climate could be like if carbon dioxide levels in the atmosphere remained at today's levels. Even this would require huge reductions in day-to-day emissions. The calculations show that, in such a case, global warming would initially continue because of the inertial effects of the oceans. The temperature

increases would then slowly abate while ocean levels would continue to rise, even after several hundred years.

The lesson we can draw from this is that even if we are successful in strongly reducing our current emissions, we will still have to live with the effects of our past emissions. This means that we have already “signed up” for a certain amount of continued climate change. We can also see that reducing emissions gives long term results. Perhaps these new results can increase our motivation for action.

Even if all climate calculations contain a degree of uncertainty, there is nevertheless today broad-based scientific understanding of the problem. Climate projections focus mainly on weather and water over the next century. They can also give indications as to the anticipated effects of a changed climate. This knowledge, together with industry sector knowledge and analysis of vulnerabilities and possibilities provides crucial information for decisions regarding investments, risk management, access to natural resources etc.

It will probably never be possible to make prognoses for the climate in the same way as for the weather. Instead, climate change is analysed on the basis of probabilities. For those that want to manage developments in the future, the lesson is to begin today and learn as you go.



“The climate issue is an issue of fate, justice and the future. Sweden is one of the few countries in the world where GNP is increasing while greenhouse gas emissions are decreasing. Our country has a unique situation with a strong economy, good technological solutions and high environmental competence. This creates an enormous potential for the export of technologies which benefit the climate and to earn money in the process.”



The way of the future lies with committing to renewable energy, energy efficiency and reduced need for transport. Politicians need continual pressure from society and business to take the right decisions. Sweden’s business leaders can therefore play a very important roll by taking on responsibility for a long-term sustainable society. The airline industry must bear the costs of its climate impact, the automobile industry must develop and market more efficient cars, the electricity and power industry must invest in renewable energy. Energy efficiency should be a self-evident choice where both the economy and environment win. We challenge companies to use that which already exists today: choose “Bra Miljöval”-marked electricity, take on a climate smart travel policy, choose fuel efficient cars and energy efficient products and services. The solutions already exist and together we can change. The Swedish Society for Nature Conservation welcomes the BLICC initiative and hopes that you perform miracles, because we need them!”

*Svante Axelsson,
Secretary General, Swedish Society for Nature Conservation
www.snf.se*

“A sustainable society must not deplete the earth’s resources. Therefore the long term vision for the Swedish government’s energy policy is that we will eventually meet all of our energy needs from renewable sources.”



Sweden has a good starting position. About a third of the energy we use is renewable. The 1997 and 2002 bipartisan energy agreement laid a long term basis for research, technology development and environmentally friendly power production. But we have a long way to go. Dependency on oil and uranium is problematic, for the environment, for energy sourcing security and for security policy reasons. During autumn 2005 the Government formulated the ambition to break Sweden’s dependency on oil by 2020. By then, no house should need oil for heating. By then no driver should only have the choice

of petroleum. By then there should always be a better alternative to oil.

We need help in achieving the transformation to a sustainable Sweden – everyone stands to gain by that. Therefore I commend those businesses which take responsibility for the climate and sustainable development. Only together can we create a better world for our children and grandchildren.

Mona Sahlin, Minister for Sustainable Development



LFV becomes Climate Neutral

By setting a price on the operation's carbon dioxide emissions, we increase the return on our investments that reduce carbon dioxide emissions. The transformation process occurs faster and more effectively. During the year, LFV has halved the direct carbon dioxide emissions of its operations.

For LFV, which operates in an industry with a high impact on the climate, it is important to do as much as possible to reduce our climate impact today and at the same time stimulate long-term conversion to a more climate friendly airline industry. Therefore LFV has become the first Swedish company to invest in being climate neutral. LFV buys green electricity certificates, terminal heating is being converted to biofuels, environmental cars are being purchased and synthetic diesel is used in airport buses. Airlines' airport charges are environmentally differentiated to stimulate them to invest in cleaner aircraft and taxis with environmental cars are given priority in the taxi queue to encourage taxi companies to invest in cleaner cars.

In the early stages, LFV will need to offset its remaining carbon dioxide emissions, but the goal is to achieve operations with no carbon dioxide emissions. Compensation for the emissions which LFV has not eliminated during the year will be made through supporting projects which reduce carbon dioxide emissions in developing countries. This opportunity is offered within the framework of the Kyoto Protocol.

These efforts are also an example of BLICC members in cooperation: the green heat is delivered by Fortum Värme and Statoil provides biogas at Arlanda Airport.

climate neutral

enterprise

BLICC companies' experience should be shared to inspire others to do even more!

It is therefore pleasing that several climate initiatives have now begun around Sweden. The Cities of Stockholm and Malmö offer companies and organisations a program for becoming climate neutral. LFV has also taken the initiative for the program to be offered to all businesses at Arlanda Airport. The Program involves a company/organisation calculating its emissions and carrying out a program of emission reduction activities.

Energy Efficiency



Despite studies which indicate large potential savings from energy efficiency in new buildings and presently existing ones, on a per square metre basis, the energy use of buildings has not improved since the early 1980s. Energy efficiency must become a priority for company executives.

In the ongoing cooperative project “BLICC House” companies collect and describe their most effective measures to reduce the climate impact from residences and offices. The project aims to promote a signi-

Using computerised operations management in its entire property portfolio, **Bostads AB Poseidon** has the capacity to supervise and control all systems on a 24-hour basis. This investment has reduced energy use by seven percent and given cost savings of 10 million SEK per year. Poseidon has also conducted a long term energy savings program in all residences and reduced energy use for space and water heating in them by 18 percent (188kWh to 154 kWh) since the end of the 1990s. As a result, carbon dioxide emissions have decreased by around 4000 tonnes per year and heating costs have decreased by around 25 million SEK per year, or 1000 SEK per apartment.

ficant reduction in energy use in currently existing buildings.

Energy efficiency must become a priority for company executives, and energy use must be translated into economic terms. The results indicate that considerable gains in a building’s energy efficiency can be achieved through a professional building management system based on an holistic overview – which includes both technical and economic as well as environmental and amenity considerations. This involves steps which all property owners can take today.

BLICC companies’ good results point to an enormous potential for reduced energy use and significant cost savings.



Övre Lövgärdet ”Million housing programme” district in Göteborg. Energy use for space and water heating has decreased by around 30 percent since 1999 thanks to a systematic search for energy waste.

Heating, residential electricity and water usually account for a third of a residential company's costs. For **MKB Fastighets AB** it is a strategic company policy to take a holistic approach to reducing these costs. These efforts have reduced energy use for space and water heating by 20 percent since 1993. Without a systematic approach, carbon dioxide emissions could have been almost 25 percent higher today. The effect of the significant price rises for electricity and heating have therefore been limited.

Through a focus on professional building management over 25 years, MKB Fastighets AB has halved use of district heating in the Lorensborg residential area in Malmö.



Vasakronan thoroughly inspects building management routines with every residential purchase - this alone leads to an immediate energy reduction of, on average, ten percent. The inspection involves everything from carrying out neglected maintenance of infrastructure to function-checking of heating, ventilation and cooling, checking of operation times and the balance in heating and cooling distribution. Vasakronan's key figures for heating usage are 25 percent below the national average.

In order to better meet clients' needs, Vasakronan manages its properties using its own operations personnel.

NCC contributes to the BLICC House project with a leap in technology. Through NCC's work for increased pre-fabrication, so-called "industrial construction", energy effective technology can be developed on a larger scale. Technical platforms for construction and installation in both residential and office buildings improve management of construction projects and enable optimal solutions from energy and environmental perspectives. During the year, NCC launched "NCC Komplet" which means that 90 percent of a building is assembled in the factory. The building is then delivered in the form of flat packages which are easily assembled at the construction site. NCC Komplet is a new and unique way of building housing in apartment buildings. The system halves construction time, increases quality and reduces costs.

NCC Komplet is a new and unique way to build housing industrially - a technical leap forward in the building industry.





Increase Recycling - for the climate's sake

Producing a tonne of new aluminium creates around seven tonnes of carbon dioxide, while recycling the same amount of aluminium produces merely around 300 kg of carbon dioxide - one twentieth the amount.

Around 7000 tonnes of aluminium from packaging is deposited yearly as landfill in Sweden. During 2004, 30,800 tonnes of metal containers were recycled while 15,000 tonnes were thrown out - for example households' tin cans which end up with the kitchen waste. 10 000 tonnes of aluminium containers were put on the market, but only 27 percent was recycled - far from the target goal of 70 percent.

Since the global demand for aluminium continues to increase, dumping any of it as landfill means that an equivalent amount must be extracted from the earth's crust. Using new technology, the recycling company Stena Metall has been able to increase the recycling rate for every given quantity that has come in, with large benefits to the environment. At the same time, energy use has reduced. However, large quantities of metal still evade us since it is often simpler and cheaper to dispose of it at the tip.

Part of the explanation for the dumping of valuable metals lies in the fact that many products are hard to recycle. Länsförsäkringar offers the market "recycling insurance", a guarantee for producers and society

that economic means are available for recycling when the products have served their purpose. The simpler the product is to recycle, the lower are the insurance premiums. This stimulates development of products with fewer blended materials, where the material is clearly marked and where disassembly is quick and simple.



Design with the end in mind! Increased producer responsibility encourages more effective recycling and reduced carbon dioxide emissions.



Renewable Energy

A crucial task for the future is to ensure access to renewable energy. BLICC works at a political level to encourage solutions based on long-term horizons with broad political agreement. These should stimulate the energy industry to make comprehensive investments in renewable energy production. They should also facilitate Swedish industry to make the long-term investments in new technology that are needed for us to have a competitive industry with minimal climate impact.

Residential and office buildings

By offering bio-based district heating, **Fortum Värme** contributes to a reduction of global carbon dioxide emissions by around 300,000 tonnes per year, which equates to the emissions of 40,000 oil-heated houses. The environmental commitment continues: possibly Sweden's single largest contribution to reduction of greenhouse gases – around 1 million tonnes per year – comes from the planned bio-energy heating installation in Värtan, Stockholm, scheduled to begin operations in 2009–2010. This installation means that almost 2 TWh of electricity will be added to the Swedish distribution system and can replace imported electricity from fossil-based coal condensation facilities.

Utilising free cooling from lakes and the sea for district cooling systems enables even more emission reductions. Fortum Värme's planned investment in free cooling means that carbon dioxide emissions can be reduced by a further 300,000 tonnes between 2004 and 2010.

Painstaking checking of fuel ensures that Fortum's district heating is simpler, safer and cleaner.



Transportation

The energy company **Statoil** takes a holistic view of the conversion to renewable energy. Oil dependency must be broken and it is important that renewable energy resources are used in the best way possible. Low level blending of bioethanol in all 95 octane petrol is an effective way to quickly increase the share of renewable energy. In Statoil's case, this means that emissions in Sweden have reduced by around 130,000 tonnes per year. By increasing the amount of ethanol to ten percent, Sweden's total carbon dioxide emissions would reduce by a further 1.2 million tonnes per year.

At the same time, Statoil is investing heavily in E85 ethanol pumps and now has more than 90 ethanol fuelling stations. In the Stockholm region three Statoil stations sell biogas and there are plans for more.

INSPIRATION

Businesses who want to be inspired by BLICC's Travel Policy will find it on www.blicc.se

Avoid unnecessary travel!

A **good travel policy** includes not only how employees travel, but also how they do not travel. Eliminating unnecessary travel is an important goal. BLICC's travel policy can be used by companies which want to increase their number of travel-free meetings and reduce travellers' environmental impacts. The policy also includes employee commuting.

The cost of Swedish work-related travel is around 50 billion SEK per year, according to Assistant Professor Peter Arnfalk of the International Institute for Industrial Environmental Economics. To deal with this, over 90 percent of companies have a travel policy, according to recent research by Arlanda Express. However, only one in ten travel policies include travel to and from work and too few focus on avoiding unnecessary travel.



Travel-free meetings

There is great potential for increasing travel efficiency. Research from the USA and Canada shows that work travel is one of the three largest controllable costs in a service company. The business logic is obvious – costs can be reduced by up to 80 percent when a physical meeting requiring travel of 500 km is replaced by a virtual meeting. However the largest savings are often due to time saving and increased effectiveness. Therefore it is important to create routines for choosing communication modes for all types of meetings, including the virtual ones, says Dr Arnfalk.

Vasakronan is leading the way: with good travel planning and use of virtual meetings, the company has reduced work-related air and car travel by 40 percent during the latest two years.

Commuting

Companies can stimulate more climate-friendly commuting by, for example, offering some form of environmental bonus or free health checks to employees who walk or cycle to work. New employees can be offered an introductory package with information on the different commuting choices available as well as incentives for choosing an environmentally friendly alternative.

BLICC companies have also called on the Swedish government to allow companies to give employees public transport cards or bicycles without fringe benefit or employer taxes. Today, it is tax deductible to encourage employees to cycle in a gym, but taxable to encourage them to cycle to work.



Emission calculation is the basis of profitable climate work

Every BLICC company calculates the carbon dioxide emissions of their operations. The calculation process enables prioritising of measures for energy savings and effective conversion to renewable energy.

In larger, more complex organisations, the calculation process is a long term one – it can take several years to reach a stable calculation basis. BLICC companies work continually to augment their calculation work with goals and to integrate this throughout their companies' operations.

Dr Deborah Cornland is the reviewer of the companies' calculations. "Working with BLICC companies is both enjoyable and rewarding: the companies actually want to change. The calculation work is seen as a tool in a process to discover

their energy efficiency potential which can reduce both carbon dioxide emissions and costs for the companies. Cooperation through BLICC gives the companies a better picture of their operations and of which measures they can take. It does not just involve taking action, but taking the right action."

Carbon dioxide emissions are calculated according to the international standard Greenhouse Gas Protocol (GHG Protocol), developed by the World Resources Institute (WRI) in cooperation with the World Business Council for Sustainable Development (WBCSD). The calculation standard takes into account operations' direct and indirect emissions. It is available at: **HYPER-LINK** "<http://www.ghgprotocol.org>" www.ghgprotocol.org.

Bostads AB Poseidon Emission Data 2005

Bostads AB Poseidon

No of employees: 180
Annual turnover 2005: 1,4 billion SEK

is Gothenburg's largest residential property company. It owns/manages around 23,000 apartments. As the municipal housing company, we are responsible for the existence of accommodation, but we also contribute to city development. Poseidon is a part of the Framtiden group of companies.

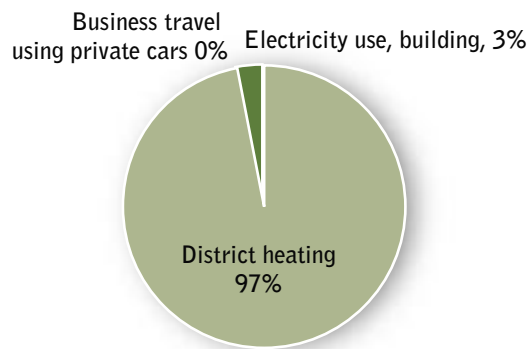
www.poseidon.goteborg.se

Poseidon's three success factors are: tenant experience, employees and "the Green Poseidon". "The Green Poseidon" concept involves both safe and pleasant outside environments as well as an environmentally responsible focus on energy conservation, internal environment, waste disposal and hazardous substances.

In 2005, Poseidon's energy consumption decreased by two percent compared to 2004. The entire housing stock is heated with district heating and since the 1990s our focus has been on computerised operations management, heating adjustments and operations

optimisation. In the years until 2010, we will make heavy investments in areas such as improvement of window insulation and individual charging for water heating. Poseidon provides quality assurance for the internal environment of its properties via third party certification, "P-marking".

Energy efficiency is a prioritised management issue. Professional building management offers an enormous potential for reduced energy use and large costs savings. Since the end of the 1990s, Poseidon has decreased its heating costs by around 25 million SEK per year.



Poseidon – estimated emissions 2005
22 900 t CO₂
(2004: 23 160)

KEY INDICATORS Specific energy use for space and water heating, entire property portfolio (normal year corrected values)

Year	1999	2003	2004	2005
kWh/m ² public and dwelling area	186	158	157	154

Fortum Värme jointly owned by the City of Stockholm Emission Data 2005

Fortum Värme

No of employees: 510
Annual turnover 2005: 6,2 billion SEK

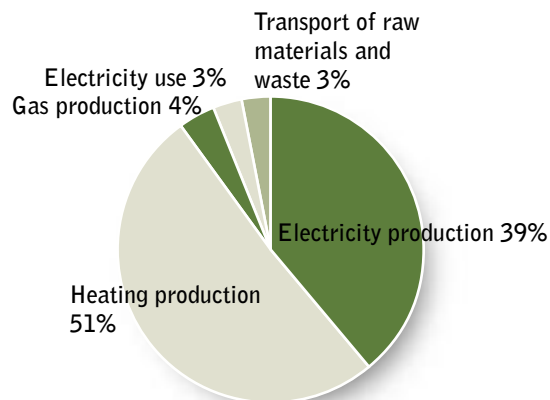
With the motto: simpler, safer, cleaner, Fortum delivers environmentally-friendly district heating and cooling, electricity and gas to companies and private individuals in Sweden. It operates in 16 municipalities, including Stockholm.

www.fortum.se

During the year, Fortum Värme reduced fossil fuel use by more than 500 GWh, which led to reduced carbon dioxide emissions of 150,000 t. This was achieved by systematically converting peak and reserve capacity from fossil-based furnace oil to renewable fuels.

In 2005 a record was set in new sales of district heating - with 600 new clients. Even though an increase in operations meant increased emissions for Fortum Värme, the total emissions are significantly less than if the clients had used oil for heating.

Climate change is one of the greatest challenges of our time. In its cooperation with BLICC, Fortum Värme wants to make a difference. New clients, renewable energy and environmentally-friendly heat and electricity production contribute to reduction of carbon dioxide emissions by 2.5 million tonnes per year compared to 1990.



Fortum Värme – estimated emissions 2005
1 103 310 t CO₂
(2004: 1 232 560)

The LfV Group (Swedish Airports) Emission Data 2005

LfV (Luftfartsverket)

No of employees: 4100

Annual turnover 2005: 5,7 billion SEK

The LfV Group is a commercially run public authority whose remit is to operate 17 airports and provide air traffic control services. During 2005, 29 million passengers travelled to and from LfV's airports and around 300,000 aircraft landed. LfV's income derives 60 percent from air traffic charges. Other income derives from airport stores, hotels, parking etc.

www.lfv.se

Through systematic work to reduce its impact on the climate, LfV has halved* its operation's direct carbon dioxide emissions compared to the previous year. Emissions decreased from 29,990 tonnes to 15,180 tonnes. These emissions reductions were achieved by purchasing green electricity certificates and an increased proportion of bio-based district heating. Emissions from business travel decreased by 13 percent and all of LfV's purchased, leased or hired car fleet are also environmentally friendly.

Specifically prioritising reduced energy use gives results. Newly-created Arlanda Energi - tasked with reducing energy use at Arlanda Airport - has already saved 6 GWh in energy

* Does not include passengers' travel to and from airports or employee commuting.

(approx. 1000 tCO₂) and there is potential for further savings.

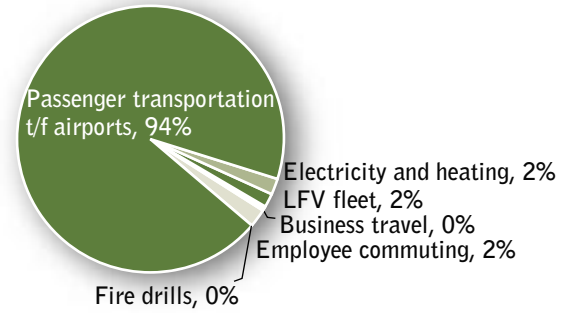
It is a key strategic business position

to reduce the air industry's impact on the climate. The demand for air travel is increasing and therefore, so too is the need for more climate-friendly aviation. Cooperation within BLICC provides knowledge and concrete cooperation opportunities.

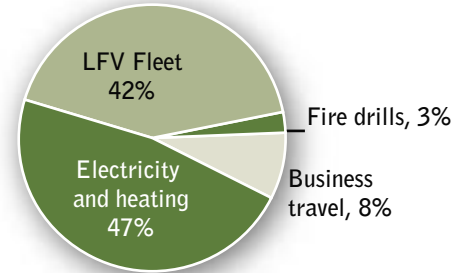
KEY INDICATORS

Direct emissions per passenger

Year	2003	2004	2005
kg CO ₂ /passenger	0,84	1,09	0,53



LfV - estimated emissions 2005 incl. passenger transportation
359 010 t CO₂ (2004: 249 950)



LfV - estimated emissions 2005 excluding passenger transportation and employee commuting
15 180 t CO₂ (2004: 29 990)

Estimated emissions from air traffic Landing and Take-off cycle 2005: 258 700 tCO₂ (not included in chart)

Länsförsäkringar Sak Försäkrings AB, Emission Data 2005

Länsförsäkringar Sak Försäkrings AB

No of employees: 315

Premieintäkt 2005: 1,0 billion SEK

The 24 county-owned insurance companies cooperate through the jointly owned Länsförsäkringar AB which includes Länsförsäkringar Sak Försäkrings AB. Länsförsäkringar Sak helps the county insurance companies with product development and has its own business operations, for example health insurance and recycling insurance.

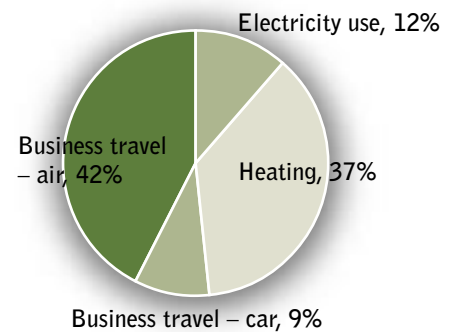
www.lansforsakringar.se

During 2005, Länsförsäkringar expanded its damage prevention activity. All damage involves a large cost to the environment through energy use, clean-up, transportation and use of materials - a house fire emits around 25 tCO₂. Länsförsäkringar Sak participated in the Bygga-Bo dialogue, cooperated in a review of building regulations and supported the county insurance companies' damage prevention work.

To reduce business travel emissions, Länsförsäkringar is working to replace car and air travel with train travel. Company

cars are also being replaced successively with environmentally-friendly cars.

Insurance operations are influenced by climate change through the damage that clients suffer, for example floods and storms. The storm Gudrun in January 2005 cost 2.8 billion SEK. Businesses operate with the long term in mind and Länsförsäkringar must act now on future risks.



Länsförsäkringar Sak - estimated emissions 2005
250 t CO₂

MKB Fastighets AB Emission Data 2005

MKB Fastighets AB

No of employees: 226 (average)

Annual turnover 2005: 1,3 Billion SEK

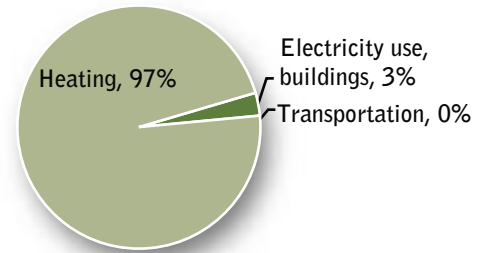
MKB is Malmö's largest residential company with 29 percent of the rented housing market. The company's portfolio is valued at 11.3 billion SEK. The company has a very strong financial position.

MKB is wholly owned by Malmö City Council and operates on a commercial basis.

www.mkbfastighet.se

MKB's carbon dioxide emissions have declined by 15 percent since 2004. The reduction is mainly due to increased heating efficiency. Ongoing operations optimisation along with investments in water-saving devices and adjustments of inside temperatures have reduced energy use due to heating by 7 percent compared to 2004 (normal year adjusted value). The reductions in carbon dioxide emissions are also helped by the fact that the district heating provider has reduced its carbon dioxide emissions by around 10 percent.

Work to reduce MKB's emissions is essential for meeting Malmö City Council's directives but it is also a question of company strategy. Over the coming decades, the directives and regulations which touch on climate and energy will continue to grow. Knowledge of carbon dioxide emissions and the conditions required to reduce them is good preparation for meeting these developments. Through its cooperation in BLICC, MKB, in dialogue with regulators and other decision makers, can influence the framework in which MKB will operate in the future.



MKB – estimated emissions 2005
32 040 t CO₂
(2004: 37 580)

KEY INDICATORS Specific energy use for space and water heating, entire property portfolio (normal year corrected values)

Year	1996	1999	2003	2004	2005
kWh/m ² public and dwelling area	182	172	166	169	157

NCC Construction Sweden AB Emission Data 2005

NCC Construction Sverige AB

No of employees: 8 000

Net annual turnover 2005: 19,4 Billion SEK

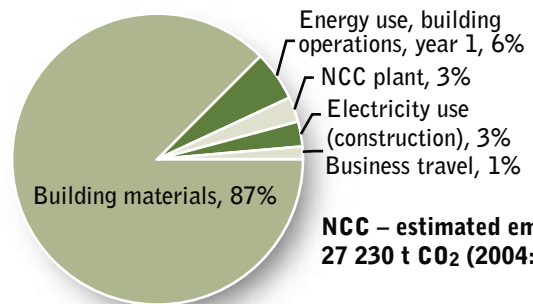
NCC Construction Sverige AB utvecklar och bygger bostäder, kontor, övriga hus, industrilokaler, vägar, anläggningar och övrig infrastruktur. NCC är en ledande aktör när det gäller att utveckla bostadsprojekt. Under de senaste åren har ett stort arbete lagts ned på att öka det industriella byggandet med förbättrad kvalitet till sänkta kostnader.

www.ncc.se

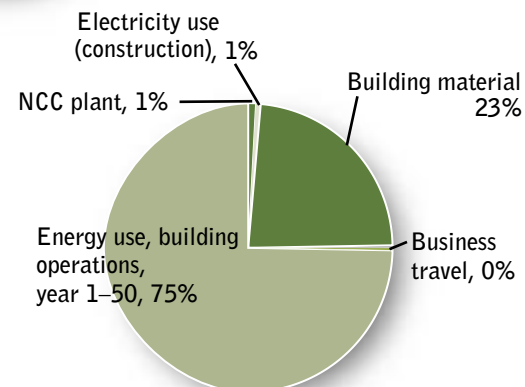
NCC Construction Sweden's emission calculations cover housing built by NCC. Comparison of the year's results with the previous years indicates an increase from 21,890 tCO₂ to 27,200 tCO₂. This increase is due to an increase in the number of apartments. The properties' performance has not changed.

The incentives to create energy efficient buildings increases along with energy costs. NCC has seen an increasing interest in super-insulated buildings (passive housing). Even interest among small consumers in investing in new energy efficiency technology is increasing.

The annual addition of new buildings is tiny in relation to the existing stock, but the buildings NCC creates today will be in operation for 50 to 100 years in the future. A building company such as NCC must ensure that there will be energy efficient buildings in the future.



NCC – estimated emissions 2005:
27 230 t CO₂ (2004: 21 890)



NCC's estimated emissions from dwellings built 2005 including construction and operations over 50 years.
105 200 tCO₂e (2004: 82 400)

KEY INDICATORS Total energy use/m² for residences built 2005* (kWh/m² year)

House	127
Apartment building	106

* including space and water heating, domestic electricity. Based on theoretical calculations

SMHI Emission Data 2005

SMHI

No of employees: 550

Annual turnover 2005: 0,5 Billion SEK

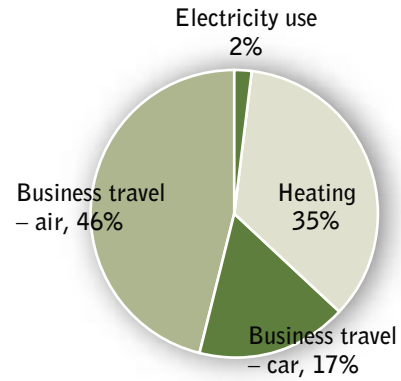
SMHI, the Swedish Meteorological and Hydrological Institute, provides data for planning and decision-making in areas dependent on weather and water conditions. SMHI is an expert authority on meteorology, hydrology and oceanography, and is also a resource for environmental efforts.

www.smhi.se

During 2005, SMHI reduced its use of district heating at its head office in Norrköping by around 20 percent. This led to an absolute decrease in emissions. In addition, the Norrköping office uses exclusively renewable electricity.

SMHI works continually to reduce its business travel and this has resulted in emission reductions of around 16 percent.

For SMHI, which has climate change research as one of its main duties, the need to work actively to reduce emissions is self-evident. By disseminating information from climate research and even acting through client assignments and enquiries, SMHI wants to influence other actors to reduce their impact on the climate and give advice related to adaptation to the prevailing climate situation.



SMHI – estimated emissions 2005
550 t CO₂
(2004: 640)

Stena Metall Emission Data 2005

Stena Metall

No of employees: 2500

Annual turnover 2005: 21 Billion SEK

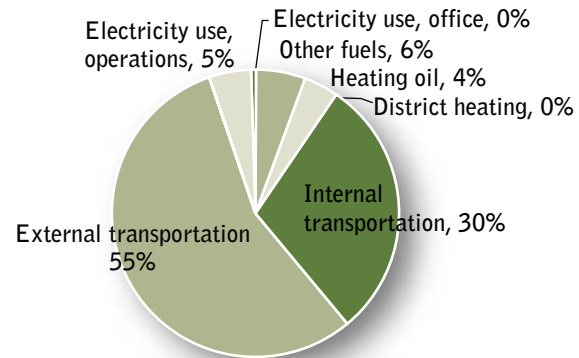
Stena Metall is the Nordic region's market leader in recycling and environmental services. Recycling instead of using virgin material provides large energy savings –by up to 20 times for some materials. Stena Metall works therefore continually to refine and develop its recycling processes.

www.stenamettall.se

During the year, Stena Metall focused on several areas to reduce carbon dioxide emissions. The economical driving project reduces both emissions as well as wear and tear on vehicles and has already shown positive results. Stena Metall works also to reduce the number of internal trips, primarily through better coordination and logistics. To further support development towards more effective recycling processes, Stena Metall has partly funded a chair in industrial material recycling at Chalmers University.

After a successful project with self-owned railway vans, Stena Metall has continued work to expand use of rail transportation. The company is restoring existing tracks to its locations and seeking approval for new tracks. The goal is to expand operations with more vans and longer routes.

With an overhaul of energy use in its premises, Stena Metall wants to encourage efficiency improvements and also exchange remaining oil furnaces with renewable energy sources.



Stena Metall – estimated emissions 2005
65 260 t CO₂ (2004: 84 600)

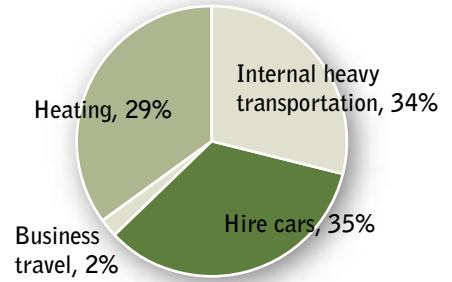
Svenska Statoil AB Emission Data 2005

Svenska Statoil AB

No of employees: 1 557
 Annual turnover 2005: 39,9 billion SEK.
 Includes Statoil Detaljhandel AB.

Statoil sells and distributes petrol, diesel, furnace oil, energy solutions, LPG, aircraft fuel and wood pellets. The company also develops, produces and sells lubricants and is Statoil Detaljhandel's supplier of fuels. In Sweden there are 596 Statoil service stations run by Statoil Detaljhandel, of which 100 are Statoil-operated and the rest are run by franchisees. Swedish Statoil AB is a part of the Statoil concern, Norway's largest energy company.

www.statoil.se



Statoil estimated emissions 2005
51 855 t CO₂

Through its climate work, Statoil wants to contribute effectively to a process of conversion to renewable energy. This work is long term and requires a holistic perspective and dialogue with industry, politicians, regulators, clients and suppliers.

Today, within the heating sector, oil is giving way to bio-based alternatives such as wood pellets. Even within the transport

sector, renewable alternatives such as ethanol and biogas are developing fast. But conversion within the transport sector is harder and will occur more slowly. It is therefore important to promote versions of current fuels with reduced climate impacts, such as increased mixes of bio-components.

It is also necessary to ensure that we use today's oil-based products in the most climate

effective ways possible. Diesel, for example is the better alternative of the fossil fuels from a climate standpoint. The sulphur-free Europa diesel is a better choice for the climate since it causes around 10 percent less emissions in the production phase than the Swedish environmental class 1 diesel.

Vasakronan Emission Data 2005

Vasakronan

No of employees: 375
 Annual turnover 2005: 2,7 billion SEK

Vasakronan is one of Sweden's leading property management companies. Its main focus is on office buildings and shop premises, together with a wide range of services. The property portfolio consists of 160 properties in Stockholm, Gothenburg, Malmö, Lund and Uppsala.

www.vasakronan.se

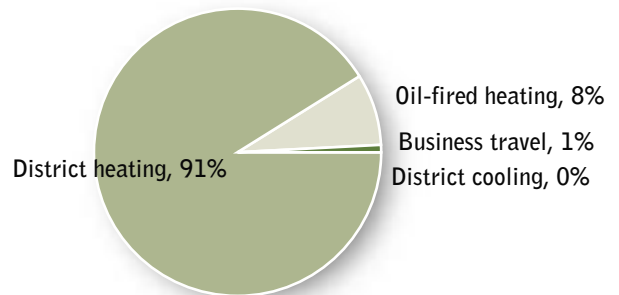
During 2005, Vasakronan reduced its carbon dioxide emissions by 17 percent. This was due to systematic work on phasing out oil which resulted in reduced oil use by 35 percent. At the same time, district heating usage decreased by 5 percent thanks to an engaged operations team with continual focus on energy savings. An effective follow-up system contributed to the reduced emissions as has a more environmentally friendly production of district heating.

Emissions from business travel reduced by 10 percent. During the last two years, emissions have declined by 40 percent which is explained by an increased focus on travel planning and travel-free meetings such as video meetings.

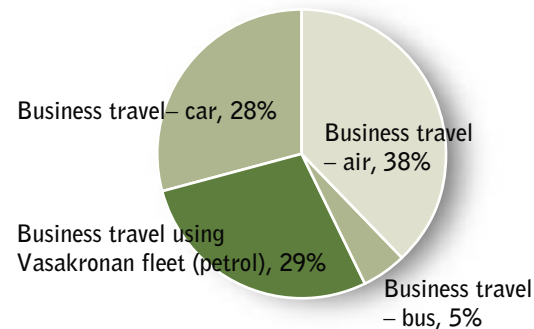
Reducing energy usage is one of Vasakronan's primary strategies. Today Vasakronan's energy usage is 25 percent below the national average which gives significant cost advantages. Rising energy prices strengthen the argument for even further energy efficiency. Cooperation through BLICC provides the potential to influence development of long term and stable regulatory regimes.

KEY INDICATORS Energy use, space and water heating, premises					
Year	1996	1999	2003	2004	2005
kWh/m ²	112	108	105	97	94

For comparison: average energy use Sweden 2005: 128 kWh/m². Source SCB



Vasakronan – estimated emissions 2005
19 120 t CO₂(2004: 22980)



Vasakronan – estimated emissions from business travel 2005
240 t CO₂ (2004: 270)

Our country has a unique situation with a strong economy, good technological solutions and high environmental competence. This creates an enormous potential for the export of technologies which benefit the climate and earn money in the process.

Svante Axelsson,
Swedish Society for Nature Conservation

Internet

You can download this report in pdf format from www.blicc.se

Other links:

Rosby Centre, SMHI: www.smhi.se/

GHG Protocol: www.ghgprotocol.org

World Resources Institute: www.wri.org

World Business Council for Sustainable Development:
www.wbcsd.org

Business Leaders Initiative on Climate Change

Not only do our living conditions change when the climate changes – our economic conditions change too. The rapidly rising prices of fossil fuels give us further incentives to reduce our greenhouse gas emissions. The question is not whether the business world can afford to engage in emission reduction, but whether we can afford not to. The longer we wait, the more drastic actions will be required and the dearer it will be. If we start early, we can instead create competitive advantages for Swedish industry, in the short and long terms.

BLICC accepts the challenge to work towards the climate-friendly business of the future. Other companies are welcome to join us.

