

Preface by Vienna's Climate Protection Co-ordinator

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It is my duty as Climate Protection Co-ordinator to co-ordinate and promote the implementation of Vienna's climate protection programme (KliP) across all areas of the city administration as well as to report regularly to the Vienna City Council on the progress of its implementation.

The 2009 report is the fourth and last report for phase I of KliP. Hence I am concurrently bringing the KliP follow-up proposal (KliP II), which will extend to 2020, before the Vienna City Council for adoption. This proposal was put together by a large panel of experts.

As with the 2007 report, I also commissioned the Austrian Energy Agency, an internationally recognised expert in the field, to evaluate the implementation of KliP. The actual evaluation report by the Austrian Energy Agency dated October 2009 is part of my report to the Vienna City Council.

The following is the short version of this evaluation report.

Vienna, in November 2009

Christine Fohler-Norek

Results of the Austrian Energy Agency Evaluation

In 1999, the Vienna City Council adopted the Vienna Climate Protection Programme (KliP), thereby fixing the targets and direction of its Climate Protection Policy until 2010.

The implementation of 36 sets of measures in the following 5 fields of action

- district heating and electricity generation
- housing
- businesses
- city administration
- mobility

was intended to prevent the annual emission of 2.6 million tons of CO₂ equivalent between 1999 and 2010. Using the outlook of the late nineties concerning energy consumption and volume of traffic, the Energy Agency calculated that these 2.6 million tons of prevented emissions would be equal to a reduction of 14% when compared to emissions in 1990.

The target achievement of all the 36 sets of measures was evaluated by the Austrian Energy Agency on behalf of the Executive Office for the Co-ordination of Climate Protection Measures (MD-KLI). It was found that all 36 sets of measures have been launched, already resulting in the avoidance of 3.1 million tons of CO₂ equivalent at the end of 2008 (in absolute terms, the goal of 2.6 million tons of CO₂ equivalent had already been reached in 2006). In 2010, the year of the KliP target, the actual amount in tons of avoided CO₂-equivalent emissions will be much higher than originally intended. Nevertheless, the forecast for the change in energy production and traffic volume made at the time was incorrect. These sectors have grown more rapidly than had been anticipated, and so did the sector's greenhouse gas emissions (GHG emissions). This explains why overall Viennese GHG emissions in absolute terms have increased in spite of the success of the KliP mea-

asures. The greenhouse gas balance for Vienna for the period 1990 to 2006 shows an increase from 8.1 million tons (1990) to 9.2 million tons (2006), an increase of nearly 13.5% (in the same period, overall GHG emissions for Austria increased by 15.0%).

The changes in the actual level of emissions, as well as the changes originally predicted, are shown in fig. 1.

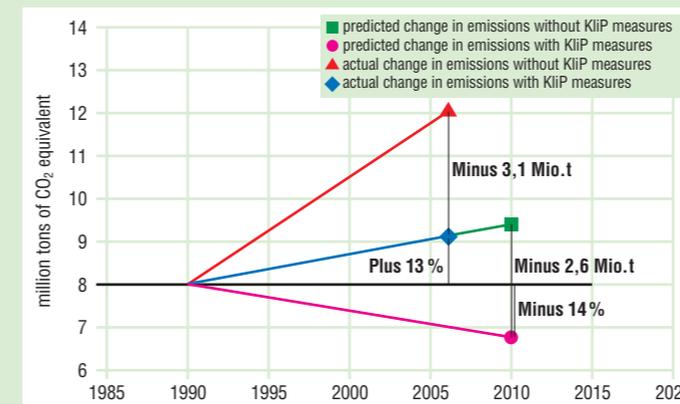
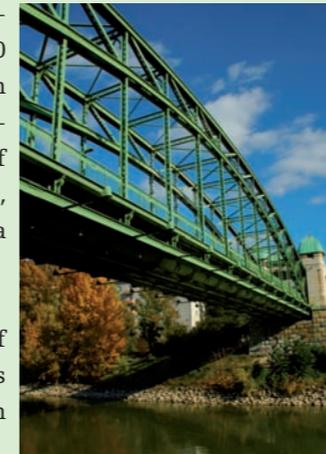


Fig. 1: Actual and predicted trend of GHG-emissions in Vienna

The actual greenhouse gas balance (BLI) for Vienna prepared by the Federal Environment Agency shows that Vienna has a relatively good GHG emissions balance when compared with Austria as a whole. While 20% of Austria's population lived in Vienna in 2006, Vienna's share of Austria's GHG emissions was only 10.1%. Vienna's emissions per capita, at 5.5 tons of

CO₂ equivalent, were therefore significantly below the Austrian average of 11 tons.

Vienna's GHG emissions as stated in the greenhouse gas balance are only partly influenceable by Vienna's climate protection measures. If one considers only those emissions that can actually be influenced by measures taken by Vienna, GHG emissions were reduced from 5.58 million tons to 5.25 million tons of CO₂ equivalent in the period from 1990 to 2006 – a change of about 6%. For this calculation, the following emissions have been subtracted:

- emissions generated by of the energy supply sector installations, which are subject to the EU GHG emission trading scheme, and
- transport emissions that are generated outside of Vienna but are attributed to Vienna in the greenhouse gas balance prepared by the Federal Environment Agency.

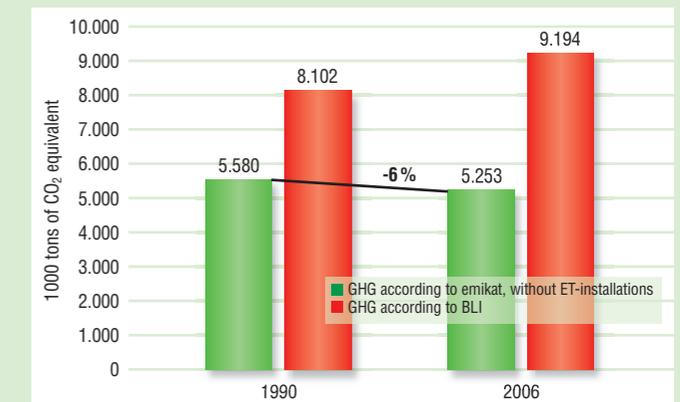


Fig. 2: Vienna's emission trends in absolute terms according to emikat (without emissions trading installations) and BLI

Results of the Austrian Energy Agency Evaluation

Concerning the emissions per capita, influenceable by Vienna, it is obvious that they can be decreased furthermore, namely from 3.73 tons (1990) to 3.16 tons (2006). This equates to a reduction of emissions per capita of around 15%.

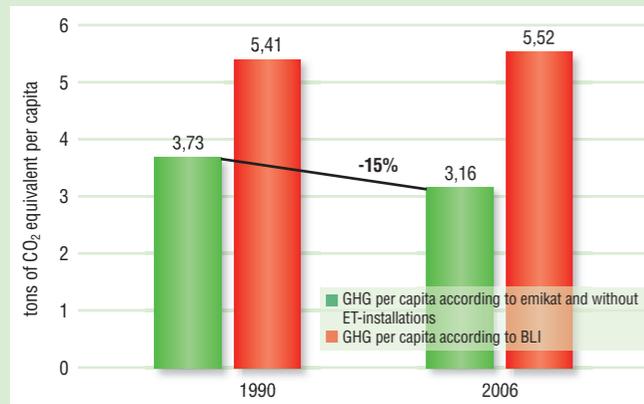


Fig. 3: Vienna's per capita emission trends according to emikat (without emission trading installations) and BLI



The main factors for success that contributed to this trend are:

- the massive expansion of district heating (in particular due to the fact that around 96% of district heating in Vienna is generated by waste heat from the waste incineration and the combined heat and power plants of Wien Energie);
- the thermal rehabilitation of residential buildings (hand in hand with strict energy standards for new buildings);
- the forceful promotion of a combination of public transport, walking, and cycling, with particular focus on the expansion of the public transportation network and on increasing its attractiveness;
- the constantly increasing use of renewable energy sources.

The study shows that KliP has also had notable economic effects. The examined measures created an investment volume of approximately 11 billion euros between 1999 and 2008. The value added was approximately 25 billion euros over the period under review. The measures also secured approximately 56,600 jobs in 2008, which means 7% of Vienna's employed persons. The KliP programmes "Neues Wohnen", "Mehr Wiener Linien", "Thermoprofit" and "Cogeneration" are the programmes with the highest effects on value added and employment.

The main challenges for future climate protection policy – also in the light of international developments – will be the following:

- massive improvements in the efficiency of final energy use (especially a decrease in household and company electricity use),

- a significant increase in the share of renewable energy sources within the total final energy mix (only possible if final energy efficiency is increased – see also above)
- reduction in traffic emissions, which are currently still rising, via city and transportation planning and technical measures.



Last but not least, it is important to mention that climate protection policy must be done with strong multidisciplinary collaboration. The most important aspect of climate protection policy is energy policy, followed by transportation policy and, lastly, by environmental policy. Thus, Vienna's Climate Protection Co-ordinator has been installed with great authority across all Administrative Groups and as a member of the Chief Executive Office. In implementing KliP, she makes use of a widespread network of experts. Since the organizational structure and the approach have proven themselves in the past, we advise maintaining them.

You can find more information about the Climate Protection Programme of the City of Vienna online at:
www.wien.gv.at/umwelt/klimaschutz/
www.wien.at/english/environment/

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KliP Report 2009

Short Version



City of Vienna
 Vienna is special.