

## **A Milestone Towards Low Carbon Society: Germany's 40% Reduction Target by 2020**

In order to limit climate change to a temperature rise of 2°C compared to a preindustrial level, developed countries must reduce their GHG emissions by 30% until 2020 and 80% until 2050 compared to 1990. In this regard Germany can support a 30% reduction by the EU with an own commitment of 40% by 2020. At present the Kyoto Protocol targets for 2012 are within reach for Germany and the EU, but they are only the very first step on the way to a Low Carbon Society.

Energy related CO<sub>2</sub> emissions account for over four fifth of German GHG emission budget, of which nearly the half is emitted by the energy production sector. Thus addressing these emissions is key for any considerable climate protection strategy which targets on a climate-friendly and sustainable energy supply. Meanwhile a bunch of opportunities across several sectors have been raised and discussed so far – sometime very controversially. However technical development has led to strong cost reductions in many areas, e.g. renewable energies, and this will continue in the future. Thus, these technologies can be used intensively for electricity generation at moderate additional costs. Modernising and replacing coal-fired power plants provides significantly increases of energy efficiency of the plants. Furthermore the expansion of electricity generation based on natural gas provides a less carbon intensive and more efficient alternative in the energy sector. In addition to these key issues the following options are also claimed: expanded combined heat and power production and optimal heat distribution across heating networks; heat production by district heating systems; improvement of building insulation; promotion of energy efficient products in households and industry; reducing of specific consumption in the transport sector; traffic avoidance; and a shift of the modal split to rail and water ways. Although some of these climate-protecting options still require widespread market penetration in order to be able to compete against conventional technologies, highly industrialized countries will be able to profit from their forthcoming global implementation because billions of Euros will have to be invested in the next decades, especially in the energy supply sector. For this the German Government adopted a comprehensive package of measures on climate protection in December 2007 which underlines Germany's pioneering role in this field. The package consists of 14 acts and ordinances and additional seven further measures.

Dr. Guido Knoche

Climate Protection Unit

Federal Environment Agency (Umweltbundesamt)

Wörlitzer Platz 1, D-06844 Dessau

Phone +49 340 2103 2386; Fax +49 340 2104 2386; eMail: [guido.knoche@uba.de](mailto:guido.knoche@uba.de)