

Efforts to protect and promote coal-fired generation in the face of security of supply concerns should be done through means other than the EU-ETS.

The Kyoto Protocol's joint implementation (JI) and clean development mechanism (CDM) are market-based mechanisms designed to lower the overall cost of reducing CO₂ emissions, as well as to spread CO₂-reducing projects and technologies to other countries. In this light, we are pleased to see that the government has increased the percentage by which companies are allowed to rely on JI/CDM to meet their emissions limits under the EU-ETS. Compared with other countries such as Norway, Japan, Spain, Italy, the Netherlands and the United Kingdom, Germany takes relatively less advantage of this market-based means of reducing greenhouse gas emissions. Henceforward, the government should consider expanding the use of JI and CDM, both by the private sector and the government itself, in the interest of spurring a global market for cost-effective CO₂ reductions and lowering the overall cost of Germany's own compliance.

Finally, we encourage the government to consider auctioning future carbon allowances to the extent allowed by EU law. Coupled with recycling of auction revenue – either back to the government to lower general taxes or for other purposes, or directly to customers – auctioning would ensure that all companies, and not just electricity customers, pay their fair share for emitting greenhouse gases. While power plants have been given these permits for free, they will still pass on the opportunity costs of the permits in electricity prices. (See Chapter 9 for further discussion of passing through the costs of emission permits.) Auctioning with proper revenue recycling would also enhance market incentives to move to low-carbon or carbon-free sources of energy.

RECOMMENDATIONS

The government of Germany should:

- ▶ *Remove the 14-year guarantee of emission permits for new power plants, as required by the European Commission, as this distorts the functioning of the carbon market.*
- ▶ *Promote more strongly the use of international joint implementation (JI) and clean development mechanism (CDM) projects, as this would spur development of a market that can reduce CO₂ emissions in a cost-effective manner for Germany and the world.*
- ▶ *Consider auctioning of future greenhouse gas emission allowances with revenue recycling back to the government or customers to create greater incentives for companies to move towards low-carbon or carbon-free sources of energy.*

In the context of Germany's environment and climate change objectives, energy efficiency is increasing in importance in the country's overall energy policy. While energy intensity – energy consumed per unit of economic output – has already been improving quickly, the government has set an ambitious target for 2020, one that will be difficult to achieve without additional policies and measures. Germany's energy efficiency policy focuses on industry, building performance and transport fuel consumption.

TRENDS IN ENERGY EFFICIENCY

Energy consumption in Germany has been stable or slightly declining for many years. Consumption peaked in 1979 and was 261 Mtoe in 2005, a decrease of 3.3% over 2004 (see Figure 4). Energy consumption in Germany has thus largely ceased to track economic growth. Germany does relatively well in international comparisons in terms of generally accepted energy efficiency indicators (see Figure 7). Germany's energy supply per dollar of gross domestic product (GDP) – its energy intensity – of 0.16 tonnes of oil equivalent (toe) per USD is above average for IEA Europe (0.15). Germany's energy intensity has significantly improved over time; the average improvement from 1990 to 2005 was 1.8%. Internationally speaking, this places Germany among the leading group of industrial nations. Much of the improvement can be attributed to reduced consumption in the transport sector. Though total final consumption (TFC) of energy has increased by over 8% since 2000, absolute consumption in the transport sector has declined by nearly 6%, a trend exhibited in very few IEA countries. In addition to vehicle efficiency gains, the consumption decline can also be attributed to an accelerated trend away from gasoline-fuelled and towards diesel-fuelled vehicles.

Energy efficiency is expected to continue improving. According to the Prognos Energierapport IV, average energy consumption per unit of GDP will decrease by 1.9% per year up to 2030 under the alternative policy scenario (see Table 2 in Chapter 2).

POLICIES AND MEASURES

GOALS AND STRATEGIES

Underpinning Germany's climate change policy is its efficiency policy, which has been emphasised in recent years. In the coalition agreement of