Coal rapidly seems to be losing ground as an energy source for Spain's electricity supply. The government favours gas-fired power stations.

## Spanish coal on way out?

## by Steven Adolf

The coal mines of Asturias and León were household names in Spain for many years. From the end of the 19th century, coal generated electricity and fuelled the blast furnaces of the north. Because coal was Spain's only fossil fuel available in large quantities, it was a strategic commodity.

But during the past year, only a quarter of Spain's electricity consumption was generated by coal. The current Zapatero government would prefer to see this percentage drop to 13 per cent by 2016. The cutback in coal-fired power stations in favour of gas-fired stations and sustainable energy is a strategic choice, one made clear in the government report 'Energy Planning for Electricity and Gas 2007-2016'. During that period, 3000 MW of old coal-fired power stations will be taken out of action. This has already had a noticeable effect in terms of CO<sub>2</sub> emissions this year: until the middle of August, CO<sub>2</sub> emissions from coal-fired stations were 40 percent less than during the same period last year.

Spanish environmental groups, however, point out that highly polluting coal-fired power stations still receive preferential treatment as a strategic sector contributing to Spanish self-sufficiency in energy, although in reality this is no longer the case. Nowadays Spain imports most of its coal, as Greenpeace recently demonstrated by boarding a boat carrying Colombian coal bound for a power station in Asturias. In the early eighties, 80 per cent of coal came from Spanish mines, but by 2006, that figure dropped to 30 per cent. The imported coal has a higher energy quality, and the Spanish mines can no longer compete on the international market.

Still, coal-fired power stations benefit from a range of favourable subsidies, such as the allocation of free  $CO_2$  emission rights to the sector, say environmentalists. They point out that coal is responsible for rights have also become substantially more expensive. In recent years, Spain has increased its capacity mainly with new gas-fired combined cycle plants. Major investments in sustainable energy sources are also showing effects, with wind energy especially contributing more to the generation of electricity.

Nonetheless, the government is keeping its options open. It does not rule out replacing the 3000 MW of old power stations by



nearly two-thirds of  $CO_2$  emissions in Spain. Some power stations, such as the one in Pasaia in the Basque Country, are old and no longer meet even minimum environmental requirements. Spain ranks lowest within the EU when it comes to adhering to the Kyoto standards.

Economically, coal-fired power stations appear to be experiencing hard times. Fuel prices have increased by 30-40 per cent since the end of last year, and emission a new generation of combined-cycle, supercritical coal-fired power stations, possibly in combination with some form of  $CO_2$  capture and storage. In fact, producers have already applied for 2400 MW of new coal-fired capacity to replace the old plants. Environmental activists are not convinced. They doubt whether the capture and storage of  $CO_2$  will be a technically and economically feasible alternative in the coming years.