

The effectiveness of environmental aid - *Energy aid as an environmental protection instrument*

The use of financial instruments in environmental protection has been supported particularly on the grounds of cost-effectiveness. The use of financial instruments raises questions concerning the achievement of objectives and impacts, however. Providing financial aid does not necessarily lead to the intended reduction in emissions and the desired environmental impacts.

The goal of the present audit was to investigate whether environmental aid has achieved the intended environmental policy objectives and why objectives may have not been achieved. The audit sought to determine to what extent aid has had the desired environmental impacts and whether the effectiveness of aid has been monitored adequately by administration.

The audit focused on aid for renewable energy sources and energy conservation. In auditing these forms of aid the goal was to determine the results and impacts achieved with energy aid and also on a more general level to evaluate the supervision of environmental aid and administration's ability to use aid as an environmental policy instrument.

Energy aid has increasingly been justified on environmental policy grounds. Whereas aid for wind power was justified above all on technology policy grounds as recently as 1993, for example, nowadays the main justification revolves around climate policy. Similarly reductions in greenhouse gases have become a key indicator of energy conservation alongside conserved energy units.

In spite of the change at the principle and programme level, energy aid policy in practice has still been driven more by the desire to ensure domestic energy production and industrial competitiveness and the promotion of new technology than by genuine environmental policy view-

points. The environmental impacts of projects have not directed the targeting of aid.

The feasibility of different projects varies greatly in terms of environmental impacts. From the viewpoint of reducing carbon dioxide emissions, solar-energy and wind-power investments are the least feasible project groups. For example, the investment aid provided for wind-power projects could be used to achieve 16 times greater impacts by earmarking aid for bioenergy investments.

On the basis of the audit, sufficient attention has not been paid to applicants' need for aid when decisions are made. Energy survey aid has been granted to practically every applicant regardless of need. Investment aid has also been granted to projects which would no doubt have been carried out without aid. In accordance with section 7 of the Act on Discretionary Government Transfers, aid should not be granted unless a project could not be carried out without it or would be carried out much more slowly or narrowly.

Although energy conservation and the reduction of carbon dioxide emissions have been cited as reasons for granting aid, objectives concerning the reduction of carbon dioxide emissions or conserved energy units have not been set for aid. Applicants for investment aid are required to supply information concerning the emission-reducing effects of projects, but in practice this information is often quite scanty and no minimum levels have been set for the reduction of carbon dioxide emissions or conserved energy units as prerequisites for aid. This has made it possible for projects with extremely limited environmental impacts to receive aid.

Programmes have also left unclear how the proposed measures and resources are intended to meet the proposed objectives. Programmes do not explain on what grounds the proposed resources have been calculated. The way in which effectiveness objectives have been calculated is likewise unclear in many cases. Programmes also include objectives which are impossible to monitor.

The significance of aid for both renewable energy resources and energy conservation in reducing carbon dioxide emissions is minor. The amount of investment aid which has been granted annually for energy conservation

measures is small and this has limited the impact of aid in itself. On the other hand, for example in the case of wind power, even if objectives were achieved, aid would not result in significant environmental benefits. Since only about 6 per cent of the objective for wind power production has been achieved, aid for wind power production has resulted in no environmental benefits to speak of.

The use of wood-based fuels has increased mainly as a result of rising production in the forest branch. The increase has been in sectors where promotion measures have not been taken or wood-based fuels would have been used in any case. Since the increase in the use of wood-based fuels is mainly due to the rise in production, reductions have not been achieved in emissions.

In addition to the fact that the benefits of aid have remained small at best, attempting to achieve reductions in emissions through aid measures requires considerable financial inputs. Building the proposed 500 megawatts of wind power capacity would require about 175 million euros in investment aid at present cost and aid levels. This would result in a reduction in carbon dioxide emissions of about 1 per cent in 2010.

The most serious problem observed in the audit concerns the monitoring of investment aid. At present there is no monitoring system for investment aid at the project level. The State Audit Office considers it important to create a monitoring system for aid in order to provide information on the impact of aid. This information can be used in the future to improve the effectiveness of aid.

The audit reinforces the view that environmental aid is not a cost-effective environmental policy instrument. The State Audit Office recommends that the grounds for granting all types of environmental aid should be evaluated critically and that the necessary monitoring systems should be created for such aid.