

International Development in Energy and Environment

Recent Developments in the Field of Cogeneration and District Heating in the Netherlands

Improving the public image of District Heating

A nationwide study has recently been carried out asking for the opinion of heat consumers who are connected to heat distribution networks and of potential consumers who now use gas for heating purposes in all other areas where heat distribution is a feasible possibility. The study found that the connected district heating consumers are very satisfied with the delivered product »heat«. The gas consumers' opinion of district heating is a little less favourable. More than half of the gas consumers interviewed are ready to change to district heating if there is a possibility. The other half, in contrast to reality, believes that heat from district heating networks cannot properly be measured or controlled. A nationwide campaign using information folders and audiovisual helps is being set up in order to eliminate these misunderstandings.

Heat price policy

Broad consensus has been reached between the Ministry of Economic Affairs, the Consumers Association and EnergieNed, the association of energy distribution companies, about the recommended new heat tariff for the domestic heat market. The heat price is based on the results of a market survey of the actual annual cost for the consumers using gas for heating and for district heating users. Since 1980 the policy is aiming for price equivalence, e.i. to fix the average selling price for district heat at the same level as the gas price in similar circumstances.

Updating the Environmental Action Plan - Successful interim results for the Heat Market

The third update of the »Environmental Action Plan of the Energy Distribution Sector 2000« is in progress. In this plan Combined Heat and Power and District Heating play an important role. The results for 1995 show that the reduction of CO₂-emissions achieved in the heat sector represents 52 % of the goal set for the year 2000. This means that the Action

Plan which was started in 1991 is actually ahead of schedule in this part of the energy sector. On average every GJ of heat delivered to consumers by district heating networks helps to avoid the emission of 96 kg CO₂ per year, and district heating is therefore one of the most cost-effective and attractive measures with the highest potential for further reducing the amount of pollutants. The aim is to increase heat deliveries from 12 PJ in 1991 to 28 PJ in the year 2000. In the updating of the Action Plan special attention will be paid to the possibilities of heat storage, to district cooling of hospitals and office buildings and to the utilization of CO₂ from cogeneration and district heating systems in greenhouse horticulture.

Energy Performance Standard works out in favour of Energy Efficient Heat Market Measures

On 15 December 1995 the national government introduced new legislation requiring a specific »Energy Performance Standard« in construction and building design. In the calculation method for determining the energy performance, the coefficient for Cogeneration, Heat Pumps and District Heating is set at a 10 % better level than that of High Efficiency Heat Only Boilers. For the time being this is done by means of an »overall« factor and it can be considered as a first step. In practice the energy efficiency that can be achieved on the basis of these technical measures is between 10 and 80 per cent higher than in the case of heat produced by individual boilers. Therefore it is expected that this factor will be raised on the result of the first evaluation and that the law will be adjusted accordingly. This correction will probably take place in 1998, and the competitive position of cogeneration and district heating will thus be further improved.

Energy tax policy makes District Heating more attractive

The national government has introduced a regulating energy tax on gas and electricity delivered to domestic consumers. This energy tax has to be collected by the energy distribution companies and has to be remitted to the Ministry of Finance. The product »heat«, however, is exempted from the energy tax by the national government. Gas used by CHP stations is also exempt from tax. The energy distribution sector, however, is free to decide whether to put the equivalent of the tax on gas also on the product heat in order to keep the cost for the gas clients as high as for the heat clients. The sector has decided to do so. In this way the important difference between the gas and the electricity tax is that the extra income from heat sales does not have to be remitted to the Treasury and therefore can be used by the utilities to strengthen the financial position of the heat companies and enable them to further expand their district heating systems.

Extension of the Heat Chart Instrument

The extension of the »Heat Chart Instrument« with a module to calculate also the possibilities of advanced energy distribution systems in new building areas has recently been completed. This computer program examines the feasibility of new district heating systems in the different regions of the country and produces charts of these areas which show where district heating is possible and which make use of different colour codes expressing the degree of feasibility. The new module can be used for calculating the possibilities and the feasibility of gas and/or heat distribution systems in new building areas or of electric heat pumps in »electricity only« areas. The results of this computer program have been discussed in workshops.

New electricity plan in favour of Combined Heat and Power

The Minister of Economic Affairs has approved the new »Electricity plan 1997 - 2006«. Since the period of the moratorium on new large-scale CHP units has ended no decisions are included in the plan that might present a barrier to the use of CHP plants in the future. This means that from now on any new small or large-scale power unit will be of the combined heat and power type. The sector is now discussing a new system of market oriented energy contracts between production and distribution companies.

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EnergieNed