STATUSRAPPORT, TEMA 1, FINLAND

IMPLEMENTATION OF DIRECTIVE 2002/91/EC IN FINLAND

Ministry of the Environment has been developing the common methodology for calculation to the energy performance of buildings. Energy performance calculation procedure will be prepared by the end of the year. The calculation has been divided into two parts:
1) Calculation of the building energy demand. (energy streams across the system boundary)
2) Overall energy use of the building. (the performance of the energy chain outside the building is taken into account)
The building envelope constitutes the system boundary. The draft of calculation of the building energy demand has already been done and it will be prepared before autumn. The methodology for calculation of overall energy use has not been determined yet. The overall energy use of building may be calculated by using factors for every energy stream across the system boundary. The definition of factors has not been given. The factors of overall energy use may be anything between 0 and 2.5. Maybe the factors of overall energy use will not be determined and the calculation may not cover anything outside the system boundary.

WHAT ARE THE CRITICAL ISSUES FOR DISTRICT HEATING?

Assessment of energy performance should not be limited to the building where the energy consumption takes place. Performance of the energy chain situated outside the system boundary should be taken into account by the calculation of overall energy use. Not only losses but also savings carried out along the whole energy chain should be calculated. The calculation of energy consumption of heating should be based on the energy consumption that heating really causes. Heat and power cogeneration replaces other electricity production and replaced electricity should be taken into account.
Factors of overall energy use depend on definition of electricity. Reduction of electricity consumption is achieved by reduced operation of marginal production (increased consumption is the same thing as reduced consumption, but vice versa) and the factor of electricity should be the same as the factor of average marginal production.
If the calculations of factors do not take into account the whole energy chain, it would be better to leave them out of the calculation of energy performance.