

## Annex 1

### DESCRIPTION OF METHODOLOGY FOR CALCULATING HISTORICAL ENERGY CONSUMPTION AND ASSOCIATED CARBON DIOXIDE EMISSIONS

#### Source of Energy Data

The Statistics Division of the IEA compile annual Energy Balances for OECD Member countries commencing from 1960 and which run currently to 1989. The data shown in the Energy Balances are based on information provided in four annual OECD questionnaires: Oil, Natural Gas, Solid Fuels and Manufactured Gases; and Electricity. The data represents standardized energy balance sheets expressed in a common unit of million tonnes of oil equivalent (Mtoes) for all 24 OECD Member countries. It is, as well, separated into specific regions: North America, Pacific and OECD Europe.

In converting the basic data to a common unit a partial substitution model has been applied. Coal and gas are expressed in terms of the amount of oil that produces the same amount of heat, whereas hydro and nuclear electricity are expressed in terms of the hypothetical amount of oil which would be needed to generate the same amount of electricity in conventional thermal power plants.

The most recent data is published in the IEA publication *"Energy Balances of OECD Countries 1987-1988"*, OECD, Paris, 1990. Two other publications providing a further breakdown of statistics are *"Energy Statistics of OECD Countries 1987-1988"*, OECD, Paris, 1990, and *"World Energy Statistics and Balances 1971-1987"*, OECD, Paris, 1989. The former provides, amongst other things, the breakdown of crude oil into its various refined products. The latter has similar statistics to the IEA Energy Balances but for most of the rest of the World. Additional explanations of the terms and material described in this Paper can be found within these publications.