Monitoring data collection methodology

The collection of energy data during the ISEAP implementation period is a rather demanding and important process that needs to be planned and coordinated carefully in order to reassure the successful monitoring of the ISEAP.

Energy data is essential to be gathered from several different sources. In general the data sources can be separated among the ones related to the energy supply/production side and the ones related to the demand side. The first can provide accurate but overall information about the island's energy profile, useful for top-down analysis while the latter can be less accurate but more detailed, useful for bottom-up analysis. In both cases information related to actions undertaken, contributing to the ISEAP objectives and targets shall also be provided.

Indicative lists of possible energy data sources for each category are presented below.

Energy supply/production side

- Electricity production companies
- Electricity network operator
- Regulatory energy authorities
- District heating/cooling companies
- Fuel importers
- Gas stations

Energy demand side

- Public sector
- Residential sector
- Primary sector
- Secondary sector
- Tertiary sector
- Transports sector

- Customs

The data collection process from the energy supply/production side should be specified upon every source depending on the type of data available. For example, energy producers on the island could provide figures of total annual production (occasionally can also be found on the web) for the whole island or for consumer groups (residents, stores, industry, etc.). Special energy questionnaires should be addressed to this type of sources. Furthermore, in order to reassure the long-term data flow a good collaboration should be developed soon enough, during the ISEAP planning process, reassuring the active involvement of these stakeholders.

On the other hand the data collection process from the energy demand side can be more standardized. It is proposed to distribute monitoring questionnaires to the different target groups at least on an annual basis in order to gather data depicting the energy profile of the consumers and their actions undertaken contributing to the ISEAP targets.

For the four main sectors (residential, primary, secondary and tertiary) "Monitoring Questionnaires tool" is available as a tool for the Pact of Islands signatories. Questionnaire templates are proposed for each sector, while functions as exporting questionnaires, importing completed questionnaires and storing them to summary tables are also made available. In this way the ISEAP monitoring working group can store and process collected data from different target groups.

Additional information regarding the functioning of the "Monitoring Questionnaires tool" is provided in the respective explanatory note.

For the transports sector special questionnaires should be addressed to every company. However, transport data are also partially gathered through the proposed questionnaire templates, especially representing the private transports sectors.

The data collection of the public sector energy demand, although being part of the tertiary sector, should be dealt separately by making use of the proposed "Energy – CO_2 monitoring tool for the public sector".

The data collected from the energy supply/production and demand sides can be combined to calculate the island's energy profile on an annual basis during the ISEAP

DAFNI
Network of Aegean Islands for Sustainability

monitoring period. The results based on the accurate overall data from the supply/production side (top-down) can function as a verification of the less accurate but detailed results based on the demand side data (bottom-up). The final information can be imported to the available monitoring tools, as shown in the following diagram, in order to extract further conclusions about the ISEAP implementation progress.

Monitoring data collection logical diagram