




Intelligent Energy  Europe

Preliminary version

Step 3

Scope, objectives, players



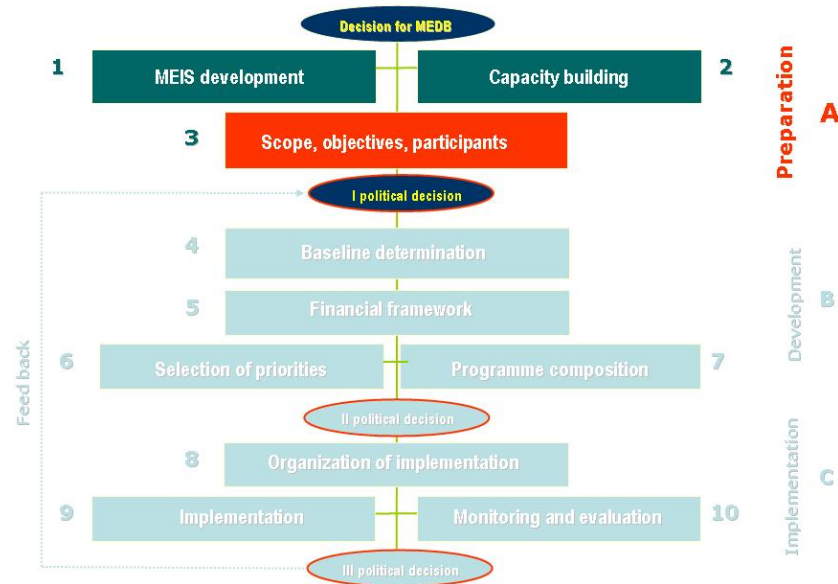
The formulation of the policy objectives, the scope and the spheres of impact is an extremely responsible, complicated and sometimes time-consuming activity, although it is formalised through a single decision of the political decision-making body of the municipality. This decision predetermines also all follow-up activities, related to the compilation of the energy efficiency programme. Although it precedes all the remaining actions related to the compilation of the programme, the formulation of the objectives should remain in the focus of attention of the local authority throughout the planning process. The objectives are subject to permanent specification and updating, and sometimes also to radical amendment

The formulation of the objectives is a task for the top policy management of the local authority, since it should mobilise all the resources of the municipality and influence the entire future development of the local economy. Therefore, in the conditions of Bulgaria, the Municipal Council should be directly engaged in the resolving of this issue.

Scope and areas of influence

The scope and the contents of the municipal energy programme depend on the extent to which the concrete municipality performs its functions in the energy sector. Some municipalities focus their programmes in one sole sphere. Others select a larger number of spheres and distribute their actions among them. In each concrete

case the selection of the scope and the contents is performed on the basis of the specific conditions in the respective municipality and in compliance with the political will of the local decision-makers.



Scope of programme

When a municipal energy programme focuses on the energy demand side mainly, most often includes projects and actions for improvement of the energy consumption. In these cases it is habitually called Program for energy efficiency. More and more municipalities are developing their programmes on the base of their four major functions (see Instruction list 0). In this way they create conditions for balanced and sustainable development of the energy sector. A program developed in this way is usually called an Energy programme. In our methodology we assume that the strategic target of the municipality should be the development of a complete energy programme. The methodology presented here has been developed on this base. This is the reason that we will use this concept from now on.

When the energy programme surveys the functions of the municipality as producer and consumer simultaneously it studies:

- Energy efficiency in the demand side;
- Energy efficiency in the supply side;
- Possibilities for utilization of alternative energy

sources and fuels (electricity, oil, natural gas, co-generation, etc.);

- Possibilities for utilization of RES (biomass, production of heat and electricity from solar energy, wind energy, geothermal energy, small hydro-power stations, etc.).

When the program examines the municipal functions as regulator and motivator it studies:

- Possibilities for encouragement of energy efficiency measures implementation by local norms and regulations development;
- Possibilities for encouragement of energy efficiency and utilization of RES by adequate local taxes and fees;
- Possibilities for development and implementation of local energy efficiency and RES incentive programmes.

The complex energy program creates prerequisites for the development of a local (municipal) energy balance based on the optimum combination of local demand of energy and the opportunity to satisfy them by the available local resources.

Areas of influence

In some cases the influence of the municipal energy programme is limited to sites that are municipal property and are managed and maintained by the municipal budget. In other cases the influence can cover all sites that are on the territory of the municipality regardless of the ownership. In the general case the sites that are supported by the municipal budget are in the focus of the municipal energy programme. The sustainable development of the municipal territory however is closely connected with the rest of the energy end-use sites, of energy production, transfer and distribution.

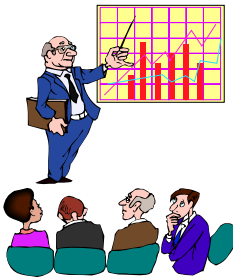
In most cases the three basic groups of sites are:

- Sites that are municipal property (schools, hospitals, kindergartens, sport halls, street lighting systems, municipal district heating plants, city/town transport, etc.)
- Sites that are state property (governmental establishments, universities and specialized schools, big regional hospitals, cultural buildings, military objectives, etc.)

- Private sites (residential buildings, local industrial enterprises, agricultural sites, private sites for local services, etc.)

Programme objectives

The formulation of the objectives of the municipal energy programme is usually based on:



- (a) The national policy in the field of energy and the environment
- (b) The municipal strategies and policies in this field
- (c) the specific circumstances and requirements of the respective municipality.

In the European countries in recent years an increasing emphasis has been laid on mitigation of greenhouse gas (GHG) emissions. This is an expression of the growing concern about climate change and its negative impact. On the other hand, the international commitments on addressing climate change have been moved up to the top of the agenda as priorities at the European, the national and the local level.

Different approaches are used for formulation of the objectives of municipal programmes. They may be assembled in two major groups – political approach and expert approach.

Important requirements

- A. The goals and objectives of the Municipal Energy Programme should correspond to the strategic goals and objectives of the Municipal Strategy/Plan for Sustainable Development – MSSD of the municipality (long- or medium-term document).
- B. The goals and objectives of the MSSD should correspond to the national development goals (incl. energy and climate protection strategies).
- C. The national goals should correspond to the EU goals for sustainable development, incl. energy and climate protection strategies (20%-20%- 20% strategic goal).

Political approach



This approach to formulation of the objectives of the municipal programme is based on preliminary worked out political objectives and tasks, around which the structure and contents of the programme are developed. An example for set in advance policy objective is reduction of GHG emissions or resignation to use electricity generated by nuclear power plants. In the first case the objective is quantified (emissions reduction in percentage), while in the second case a more general idea (a vision) is formulated, characterized by a significant political, emotional and psychological charge. In many cases these objectives ensue from important national priorities or commitments made under international treaties and protocols (UN Framework Convention on Climate Change, Kyoto Protocol). Local authorities in Western Europe are ever more often developing their programmes on the basis of political objectives worked out in advance.

Environmental goals

In the European Union such political target is the mitigation of GHG emissions and the energy consumption by 20% annually towards the levels of 2007 till 2020. At the same time, for the same period, the production of energy from RES is planned to reach 20% of the total energy production of the EU countries.

On the base of these political targets each EU country defines its own targets, which in their turn become the base for the elaboration of the municipal energy programmes.

Economic goals

The formulation of the economic targets aimed at decrease of the expenditures for energy is typical for many municipalities. As the energy expenditures are among the most sizeable items of the municipal budget, their reduction could release a substantial financial recourse that can be used for social or other needs. The economic targets can be connected with the utilization of local energy sources and the production of fuels and energy on the territory of the mutuality or with other similar activities. In this way the money for purchasing of fuels and energy can be reduced while revenues for the municipality can be generated through their local production. In this way the bases of the energy independence that more and more municipalities are striving for become reality.

Quality of energy services

Very often these targets are helping the municipalities to solve problems connected with the low level of comfort in public and residential sectors. A typical problem in some countries are the under heated classrooms and the bad street lighting. In a wider sense a problem for the municipalities is the security of the energy supply. The solution of these problems can be the implementation of energy efficiency and RES projects, which can help for the achievement of the desired level of services at a lower price.

Technical and economic approach

Objectives, based on the technical energy efficiency potential

This approach is based on the objective analysis of the state of the energy sector in the specific municipality and of the opportunities for impact on that state, including through energy efficiency measures. Usually, a significant amount of objective technical and non-technical information is to be collected for the needs of these analyses. The analyses help identify the critical spheres of energy supply or consumption, select the appropriate means (measures) for impact on them, define the priorities and formulate the objectives and estimated results. The technical & economic approach is more accurate and more objective than the political one, however it requires considerable preliminary preparations prior to resort to formulate the objectives of the programme.

Objectives, based on the economic potential of the municipality

The realization of the technical potential depends on the economical resources of the municipality. Economical resources of the municipality mean not only the possibilities for financing of activities by the municipal budget but also opportunities to raise additional funding from specialized funds, trade banks, public private partnerships, etc. The economic potential of the municipality is accessed not only according to its financial status but also according to its institutional and human capacity.

Integrated approach

Usually, in practice the political and the technical & economic approach are combined. The target that is aimed at is to reach the political goals to the greatest extent by the combination of the two approaches rendering account on the objective limitations of technical and economical nature at the same time.

Possible programme objectives



The formulation of the objectives of and the estimated results from a municipal energy programme, as well as the scope and spheres of impact of the programme are performed on the basis of expert assessments and discussions with a wide circle of specialists and representatives of the broad public. This process is usually led by a specifically set up team of experts from the municipality, which prepares a report to the Municipal Council with a draft-proposal for decision. The objectives, which the local authority lays down in its energy programme, should ensue from the real circumstances and demand in the concrete municipality. Therefore, they might turn out to be quite different for the different municipalities.

Special attention should be given to this step in every specific case. It should be implemented under conditions of maximum public participation and should build on the entire intellectual potential of the municipality.

The energy sector in municipalities is an extremely sensitive theme and every action in this field casts its shade over a number of other spheres of public activity. For this reason, the formulation of the objectives of the municipal energy programme should be performed in the framework of broader programmes for sustainable development of the municipality and the region. It should comply with the strategic development objectives and correspond to the public needs and expectations. Several examples for possible objectives of the municipal energy efficiency programme are listed below.

Diminishing of the local authority's energy costs

One possible objective of a municipal energy programme is, for instance, reduction of the energy costs (bills) paid out of the municipal budget. Formulated in this manner, the objective might orient the actions also to measures for reduction of the expenditures irrespective of the rest of the consequences these measures might entail. Sometimes municipalities allow temporary deterioration of the quality of the provided services – switching off of part of the installed heating units and/or lighting fixtures, lowering of the indoor temperature and/or shortening of the heating periods, etc. Such measures may be admissible only temporary and for short periods

of time in the event of acute financial problems. Reasonable diminishing of the energy costs paid out from the municipal budget can, however, be achieved through energy efficiency measures, which provide for preservation of the quality of the services or even its improvement. It is such measures that should be laid down in the energy efficiency programmes of municipalities.

**Diminishing of
the end-users'
energy costs**

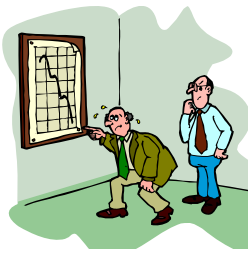
The municipal leadership might set an objective to diminish the energy costs at energy end-user sites not owned or catered for by the municipality and therefore costs not paid by the municipal budget – households, small and medium-size enterprises, industrial enterprises. Through the thus formulated objective the local authority might leverage indirect benefits for the municipality. By alleviating the energy costs burden of the households it might moderate social tensions and by encouraging the local businesses it might increase the taxation revenue to the local budget. This objective is normally achieved through methods of indirect impact. Such tools are, for instance, the urban development plans and the engineering infrastructure plans, the plans of the transport communications in human settlements. Effective tools of impact are the information and awareness raising campaigns, incentive programmes, etc. In the implementation of objectives of this kind the municipality may comprehensively fulfill its functions of regulator, investor and motivator.

**Improvement of
the quality of
energy services**

Objective of a municipal energy programme may be also the improvement of the quality of energy services. Improvement of the quality of lighting and space heating often means to increase the temperatures and the degree of illumination, where they are still below hygienic norms. This may lead to increasing energy consumption. The most natural and accessible tool to prevent incurring additional energy costs is to implement measures for demand-side energy efficiency improvement. These measures may produce also a number of additional effects, such as stabilization of heat supply, improvement of the maintenance of the system by the district heating company, as well as upgrading of the heat accounting system. Improvement

of the quality of energy services might comprise also programmes for promotion of energy efficiency and programmes for increasing the loyalty of end-users to the energy suppliers, etc.

Reduction of energy prices



When a given municipality is adequately performing its function of energy producer and energy supplier, it may set as objective to reduce the energy price rate, which end-users pay per unit of energy. This may be achieved by setting the price and the price rate on the basis of the full and real production costs without direct or indirect subsidies and in the event that the municipality has the possibility of impact on energy production. It may be anticipated that in the future this will become more and more realistic opportunity for many municipalities.

Reduction of GHG emissions

Municipalities rank among the major energy consumers and their responsibilities in the implementation of the commitments under the Kyoto Protocol will depend to a significant extent on their engagement in activities for energy efficiency improvement. For this reason municipal energy programmes will ever more often incorporate reduction of GHG emissions among their strategic objectives.

Combination of several objectives

In their energy programmes the municipalities may lay down broader objectives, which are a combination of several of the above mentioned ones. For instance, diminishing of budgetary expenditures for energy costs might be combined with the objective for gradual improvement of the quality of energy services. Energy conservation might be tied up to obligations for reduction of greenhouse gases, etc.

The model objectives reviewed above do not exhaust the existing multitude of opportunities. They represent only a small fraction of the most common cases, which demonstrate how specific and how responsible exercise the formulation of the objectives of a municipal energy programme may be in order for it to be realistic and to correspond to the actual needs and expectations of the

people. The formulation of the objectives is made by means of a declaration, which should clearly spell out:

- The level of progress expected to be achieved as a result of the implementation of the programme
- The baseline (scenario), which will be used as a reference for measuring this progress
- The time frame for achievement of the set objectives.

In formulating the objectives it is necessary to determine also the minimum levels of success, which have to be achieved or exceeded by the programme. Results below these minimum values should be evaluated as failure. Defining the criteria for cost-effectiveness is a matter of particular importance. It is on the basis of these criteria that you may approve or reject a project or evaluate the results from its implementation. When the available funds for implementation of the programme are gravely limited, it might become necessary to introduce other criteria for selection of priorities. This set of criteria is also subject to determination through a political decision of the local authority.

Players in the MEP process



An important condition for the successful elaboration and implementation of the municipal energy programme is the availability of well-trained human capacity and institutions. Different approaches have been observed with respect to the procurement of the institutional and human capacity needed for the programmes. In the majority of the European countries besides the capacity of the local specialists also the human potential of the local energy companies, which are municipal property, is used as well as that of energy agencies and specialized consultants.

Existing structures

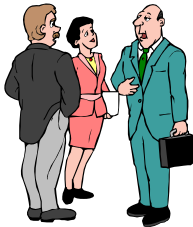
In the majority of cases the structures of the municipal administration are actively involved in the development and implementation of the energy programmes.

Examples

The environmental protection department in Graz, Austria is responsible for both the elaboration of the municipal energy programme and for its implementation. Initially, the energy department of the City Council in Leicester, Great Britain was responsible only for achieving savings in the municipal buildings. Gradually, its tasks were broadened to cover all spheres of energy consumption. This department is responsible also for the compilation of the municipal energy action plan.

The divisions responsible for the technical infrastructure, regional development, the environment and finances are the most frequently encountered participants in the working out and implementation of the municipal energy programmes in the municipalities from the Bulgarian network EcoEnergy.

New structures



In a number of cases special new administrative structures are set up for development and coordination of the implementation of the municipal energy programmes. In many European cities specialized regional, municipal and island energy agencies have been created, which provide active assistance to the local authorities in the study and resolution of problems related to energy efficiency and protection of the environment from harmful impacts. The establishment and activities of these agencies are supported through programmes of the European Commission.

Examples

In Germany there are different examples of innovative administrative structures or working groups of experts for development and coordination of the implementation of municipal energy programmes. Independent departments for rational energy use have been set up at the environmental offices in Heidelberg, Mainz and Stuttgart and at the offices for high-rise housing in Duisburg, Freiburg and Cologne. In Bredstadt a coordinator on energy issues has been nominated, who is responsible for management and coordination of the specific activities of a working group of experts from different departments of the **local administration**.

In 1996 in Bielsko Biala, Poland, an energy management office was set up. It manages municipal property and coordinates the activities of the different departments of the local authority related to working out and implementation of the energy programme.

With the creation of the municipal energy efficiency offices with the local administrations in the municipalities of the Bulgarian network EcoEnergy the foundations have been laid of organizational and institutional back-up of the activities related to development and implementation of energy efficiency programmes.

Local energy companies

Local energy companies are important actors in the development and implementation of the energy programmes. They play the most significant role in the cases when their owners are the municipalities.

Examples

For instance, the local energy supply utility in Copenhagen is the main driving force of the implementation of numerous initiatives in the field of energy production and energy end-use. The municipalities of Saarbrücken and Hanover are owners of the local energy utilities. For this reason the energy programmes are worked out and implemented jointly by the municipality and the energy utilities.

External consultants

External resources are also mobilized for the development and implementation of the municipal energy programmes.

Examples

For instance, four working groups of representatives of the utilities, the local authorities, companies and NGOs have been set up with the environmental protection department in Graz and consultancy services from the Austrian Energy Agency have been used. Each of the working groups focuses its activities on different spheres of impact.

In Leicester the energy plan of action is developed in close cooperation with the working group of energy, among the members of which are representatives of the public, the private and the NGO sectors. In this way the municipal leadership

involves and motivates also the ordinary citizens to take part in the implementation of the plan.

The services of a specialized organization for investigations, design and implementation have been used in the development of the plan of the Municipality of Szczecin in Poland.

First political decision

Approval of the political objectives



The decision, by virtue of which the objectives of the municipal energy programme are formulated, is a political act. The top decision-making body in the municipality – the Municipal Council – is the one that should take up the responsibility for it. Approval of the objectives of and the expected results from the municipal energy programme is the first political decision in the energy planning process. The specific significance and responsibility of this decision ensues from the fact that in practical terms the objectives of the programme predetermine the entire further planning process and the selection of modalities of impact on the different actors in the energy sector on the area of the municipality.

The political decision to be made by the Municipal Council consists of two main parts:

- (a) Decision to work out an energy efficiency programme.

This part of the decision defines the general deadlines and responsible officers, as well as the funds allocated by the municipality for the development effort.

- (b) Decision on approval of the objectives of the programme.

This decision describes the most general parameters of the objectives.

It is desirable prior to the submission of the draft-decision for approval by the Municipal Council to conduct clarification work among the members of the specialized commissions with the Council. Checking the public opinion and winning public support for the decision may also contribute significantly to specifying with greater precision the proposed objectives and convincing the Municipal Council in their feasibility.