

***GUIDELINES
FOR MAXIMIZING THE ENVIRONMENTAL AND
SOCIO-ECONOMIC BENEFITS AS A RESULT OF
THE NETWORKING OF SOCIAL
ENTREPRENEURSHIP NETWORKS***



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I. SUMMARY

The current study of the social impact assessment since the establishment of the social enterprise in the field of waste management has been developed within the project: *“Green” employment in the management of biowastes (Green_Crew) project, under Priority Axis 4: “Social inclusive Cross-border area”, Thematic objective 09: Promoting social inclusion, combating poverty and any discrimination, Investment priority 9c: Providing support for social enterprises, Specific objective 9: To Expand social entrepreneurship in the cross-border area, under the Cross-border Cooperation Program INTERREG VA “Greece-Bulgaria” 2014-2020.*

The guidelines are developed on the basis of a generalized assessment of the resource and economic potential on the territory of Blagoevgrad municipality and the possibilities for:

- maximizing the environmental benefits as a result of the creation of a social enterprise in the field of waste management and its inclusion in social entrepreneurship networks;
- maximizing the socio-economic benefits as a result of the creation of a social enterprise in the field of waste management and its inclusion in social entrepreneurship networks;
- expanding the development of existing enterprises and / or the creation of a new social enterprise;
- increase of social services in the field of waste management in communities with negative socio-economic indicators;
- promoting alternative waste management through new measures and infrastructures for collection and composting of "green" waste;
- raising citizens' awareness of solidarity and collegiality in the field of waste management.

II. LIST OF ABBREVIATIONS USED

| ABBREVIATION | FULL NAME |
|---------------------|--|
| EPL | ENVIRONMENTAL PROTECTION LAW |
| WMA | WASTE MANAGEMENT ACT |
| LTS | LAW ON TERRITORIAL STRUCTURE |
| LESSE | LAW ON ENTERPRISES OF THE SOCIAL AND SOLIDARITY ECONOMY |
| SAL | SOCIAL ASSISTANCE LAW |
| DEEE | DISCONTINUED ELECTRICAL AND ELECTRONIC EQUIPMENT |
| UMV | USED MOTOR VEHICLES |
| NWMP | THE NATIONAL WASTE MANAGEMENT PLAN |
| EU | EUROPEAN UNION |
| ESF | EUROPEAN SOCIAL FUND |
| EC | EUROPEAN COMMISSION |

ERDF **EUROPEAN REGIONAL DEVELOPMENT FUND**

SC **SOCIAL SERVICE**

SE **SOCIAL ENTERPRISES**

SHW **SOLID HOUSEHOLD WASTE**

III. GLOSSARY OF TERMS USED

Anaerobic digestion (methanization) is the biodegradation of biodegradable waste in the absence of oxygen, under controlled conditions and under the action of microorganisms (including methanogenic bacteria) for the production of biogas and fermentation products.

Biogas is an energy-rich gas mixture of methane, carbon dioxide and other gases, such as hydrogen sulfide, ammonia and steam, resulting from the process of anaerobic digestion.

Bio-waste is part of biodegradable household waste, in particular waste from parks and gardens, food and kitchen waste from households, restaurants, catering establishments and shops, as well as similar waste from the food industry.

Bio-waste is part of biodegradable household waste, in particular waste from parks and gardens, food and kitchen waste from households, restaurants, catering establishments and shops, as well as similar waste from the food industry. (§ 1, item 3 of the Additional Provisions of the WMA).

Waste management hierarchy - describes a desired priority in the different ways of waste management according to how and what they contribute to the environment.

Compost is a humus-rich product containing at least 15% and not more than 50% of dry organic matter of the total weight obtained as a result of the composting process.

Composting is a process of controlled aerobic, exothermic, biological decomposition of separately collected biowaste in order to obtain compost.

Pre-treatment is any physical, thermal, chemical or biological process, including sorting, that alters the characteristics of waste in order to reduce its volume or hazardous properties, to facilitate its further treatment or to increase its recoverability. This understanding is in accordance with the definition under item 25 of § 1 of the Additional Provisions of Ordinance № 6 of 27.08.2013 on the conditions and requirements for construction and operation of landfills and other facilities and installations for recovery and disposal of waste.

Separate collection is the collection in which a stream of waste is divided by type and nature of the waste in order to facilitate specific treatment (§ 1, item 34 of the Additional Provisions of the WMA).

Recycling is any recovery operation through which waste materials are processed into products, materials or substances for their original purpose or for other purposes. It includes the processing of organic materials, but does not include recovery for energy and processing into materials that will be used as fuel or for bulk activities. According to the definition under item 10 of § 1 of the Additional Provisions of the WMA.

Fermentation is the anaerobic biodegradation of biowaste into biogas.

Fermentation product is a product obtained as a result of anaerobic decomposition of separately collected biodegradable waste, the residual organic fraction of the fermentation process, meeting certain quality criteria.

A social and solidarity economy is a form of entrepreneurship aimed at one or more social activities and / or social objectives pursued by enterprises, including through the production of various goods or the provision of services, in cooperation with state or local authorities or independently..

A social enterprise is an enterprise which, regardless of its legal organizational form, has as its object the activity of producing goods or providing services, combining economic results with social goals, achieving measurable, positive social added value, being managed transparently with the participation of members, workers or the employees in making management decisions, carries out their economic activity, as part of the average number of staff are persons under Art. 7, item 4 and / or as the profit is mainly spent for carrying out social activity and / or social purpose, according to the constituent contract or statute. (§ 1, item 5 of the LESSE).

A cooperative enterprise, as defined by the International Cooperative Union (ICA), is "an independent association of people who voluntarily come together to meet common economic, social and cultural needs and aspirations through a jointly owned enterprise and democratic governance."

Social entrepreneurship is a form of entrepreneurship that combines economic activity with the pursuit of social goals, as a result of which social added value is produced. (§ 1, item 6 of LESSE).

Social added value is the achieved social effect for the target group as a result of the activity performed by the social enterprise, taking into account both positive and negative changes

and the accompanying effects as a result of other actions or lack of actions by the social enterprise. (§ 1, item 7 of the LESSE).

Vulnerable groups are all those who fail to gain access to or take advantage of the opportunities offered by society and the economy and fall victim to or are at risk of social exclusion. They usually qualify as vulnerable groups:

- young people: due to the lack of professional experience and the difficulties in combining work and education;
- people with disabilities: due to lack of accessible environment and objective restrictions on possible employment options;
- minorities: due to public prejudices and negative attitudes;
- people living in remote areas: due to the limited choice of employment opportunities, especially in difficult times for the local economy.

Social services are activities in support of persons for social inclusion and independent living, which are provided in the community and in specialized institutions.

IV. INTRODUCTION



Economic growth is crucial for the development of the local economy, accompanied by an increase in the amount of waste generated. Approximately two thirds of the waste generated in households consists of organic or biodegradable components that decompose naturally. The ever-increasing amount of waste generated by human activities, production and trade requires measures to reduce their total amount, reuse them and increase their recycling and recovery. In parallel with the increase in the volume of generated waste, their diversity, complexity, toxicity and the related difficulties and costs of their disposal are increasing. The aim is to prevent, reduce or limit the harmful effects of waste on human health and the environment. Waste is not only a threat to humans, but also a resource through the proper use of which the use of raw materials for energy generation can be minimized. With the development of waste treatment technologies, the possibilities for the use of waste as an alternative source of raw materials and energy and the reduction of the amount intended for landfill are increasingly expanding..

As a result of these trends, intergovernmental cooperation on waste management issues is deepening. "Waste management" means the collection, transport, recovery and disposal of waste, including the monitoring of these activities and after the operational activities of landfills, as well as the actions taken as a trader or broker. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal has been adopted worldwide. The Convention constitutes an agreement on the environment with regard to hazardous wastes and other wastes, with the aim of protecting human health and the environment against the harmful effects caused by the production, transboundary movement and management of hazardous wastes and other wastes. Along with the provisions for the control of transboundary movements of waste, the Convention introduces the basic principles of waste management. At European level, the main guidelines of environmental policy and waste management are set out in the European Community Strategy for Waste Management adopted in 1989, which sets out the following principles:

- “waste management hierarchy” - the first priority is to prevent the generation of waste, followed by its recovery through recycling and incineration with energy recovery, and lastly - their environmentally friendly disposal through incineration and non-recovery of energy;
- “the polluter pays” and “producer responsibility” - the persons who generate the waste or the producers of the products after the use of which the waste is generated

must cover the full costs of the waste treatment. In this way, manufacturers are interested in using recyclable and less hazardous materials, as well as to offer their products in a way that encourages their reuse and recovery;

- “Best available techniques without excessive costs ”- emissions from installations in the environment should be reduced as much as possible and in the most cost-effective way possible;
- “independence” - each country must build a network of facilities and installations, with sufficient capacity to dispose of the entire amount of waste generated on its territory;
- “proximity” - the waste must be disposed of as close as possible to the place of its generation.

About 3 billion tonnes of waste are generated in the EU each year (an average of 6 tonnes per person). About 90 million tons of them (about 3%) are dangerous, containing heavy metals and other toxic substances³. Biodegradable garden, kitchen and food waste represents 88 million tons of the annual amount of household waste. On average for the EU, about 40% of biodegradable waste is landfilled.

The European Union spends about 0.75% of GDP annually on waste management. The recycling sector has a turnover of 24 billion euros and employs about half a million people. The main source of funding for waste management activities in EU Member States is the European Regional Development Fund (ERDF).

The ERDF was established in 1975 to provide financial support for the development and restructuring of regional economies, economic change, increasing competitiveness, and territorial cooperation within the EU. Together with the European Social Fund (ESF), the ERDF is one of the two structural funds of the Union.

European trends in recent years in the field of social economy and social entrepreneurship are aimed at building businesses based on social inclusion, the development of a collaborative economy and the development of a circular economy. Social inclusion businesses are commercial organizations that aim to solve problems affecting highly vulnerable social groups by integrating them into businesses such as suppliers, distributors, retailers or customers.

The main focus of the circular economy is sustainable development. Its main goal is to protect the environment by producing goods or offering services that lead to reduced consumption of raw materials and energy from exhaustible sources. The circular economy is characterized by the use of eco-friendly materials as well as recycled materials and raw materials. At the same time, this requires the application of new technologies, some of which can be used in the activities of social enterprises.

The collaborative economy is a response to the development of online platforms that facilitate the supply and, consequently, people's access to various services. Social enterprises show great interest in the collaborative economy because of the opportunities it provides to overcome the physical, economic and social isolation that is characteristic of rural or areas with a reduced and / or aging population. The effectiveness of social enterprises in this area is determined by their characteristic deep ties with the local community and the full contacts they are able to maintain with its representatives.

In recent years, as a reflection of the pan-European trend, powers have been transferred from the central to the local authorities to activities mainly related to improving the quality of life at the regional level. The fact that the environment is one of the essential elements of the quality of life, along with the social and economic aspects, is realized by the local self-government. Moreover, local authorities are best acquainted with the state and problems of the environment, including waste management in the municipality, so their contribution is crucial.

The partnership agreement of the Republic of Bulgaria with the EC for the period 2014-2020, outlining the assistance of the European Structural and Investment Funds defines the role of community-led local development as a useful tool for empowering local communities to improve the institutional capacity of local stakeholders. countries and for the creation of social innovations at the local level, including the promotion of the development of the social economy and social enterprises.

Social entrepreneurship is an engine for regional development. Social enterprises exist and have a place in all spheres of economic activity - production of all kinds of goods and the provision of various services. For a long time now, the activity of social enterprises has not been identified only with activities in the social sector. They occupy market niches in which the state fails to offer enough services and the market fails to make enough profits.

Social entrepreneurship encourages the dissemination of good practices at local level through:

- reinvestment of profits in the areas where they are created;
- mobilization of local actors and local resources;
- creating an entrepreneurial culture;
- linking activities with local needs;
- maintaining activities that are at risk of disappearing because they are not profitable;
- creation of social capital.

The advantages of social enterprises and the reasons for their success in areas where the state and other economic entities are inefficient are:

- proximity to the problem, the solution of which is the main goal and reason for the creation or change of the direction of development of a social enterprise;
- deep understanding of the problem and its repercussions in the local community;
- finding a solution in a way that in most cases best corresponds to local attitudes, resources and understandings;
- ability to mobilize local resources.

V. PRESENTATION OF GUIDELINES FOR ENVIRONMENTAL AND SOCIO-ECONOMIC BENEFITS



1. ENVIRONMENTAL BENEFITS AS A RESULT OF THE ESTABLISHMENT OF A SOCIAL ENTERPRISE IN THE FIELD OF WASTE MANAGEMENT AND ITS INCLUSION IN SOCIAL PARTY NETWORKS.

The ecological benefits as a result of the establishment of a social enterprise in the field of waste management on the territory of Blagoevgrad municipality are reduction of the amount of landfilled biodegradable waste and increase of its utilization, recycling or disposal in a way that does not endanger human health and environment.

The most tangible and significant benefit of maximizing the biological treatment of biowaste will be the prevention of greenhouse gas emissions, which are projected to reach approximately 10

million tonnes of CO₂ equivalent in 2020 from the Waste sector alone. One of the main objectives of the Europe 2020 Strategy is to reduce greenhouse gas emissions by 20% by 2020 compared to 1990 levels. Moreover, methane should be collected from landfills as far as possible and used for energy production. If the methane generated in a medium-sized municipal landfill is converted into energy, it can provide electricity to about 20,000 households a year.

The compost produced during the disposal of biodegradable waste can be used in agriculture to improve the soil structure, which will lead to greater soil fertility and better quality of plantations, and can also be used for land reclamation. Limiting the ratio of biodegradable waste in landfills is important because biowaste is a source of infiltrates and biogas - especially methane, which forms a large part of the biogas produced and is a significant greenhouse gas. Compost supplements the soil with nutrients and also has anti-erosion properties (the ability to retain more water in the soil).

Some EU countries, such as Spain and France, produce compost mainly from mixed waste and use it in agriculture, while other countries, such as Finland, Ireland and Poland, use compost to restore soil or cover material in landfills.

EU policy aims to encourage the use of waste materials as raw materials for the production of other products as far as possible. The role of each individual or household is very important in this process. In many countries, waste collection is organized separately and consumers divide waste according to the type of material (paper, plastic, glass, metal, biodegradable waste, etc.).

The environmental benefits of waste prevention include saving valuable natural resources and the associated environmental impact of extracting and processing these resources, reducing the amount of energy consumed and greenhouse gas emissions from waste collection, transport and treatment.

The economic benefits of reducing waste are significant, as it leads to reduced costs in the municipal budget. Given the growing requirements of European and national legislation in the waste sector and the obligations of municipalities to achieve certain quantitative targets, waste management costs take a significant resource from the municipal budget.

At the individual level, the reduction of waste also brings economic benefits, although in Bulgaria they still can not be assessed as significant given the fact that the fee for municipal waste is not determined on the basis of the amount of waste disposed of. Generating less waste frees up

financial resources for households for potentially more economically productive endeavors - lower and more environmentally friendly consumption leads to less financial resources being used to purchase products that become waste.

2. SOCIO-ECONOMIC BENEFITS AS A RESULT OF THE ESTABLISHMENT OF A SOCIAL ENTERPRISE IN THE FIELD OF WASTE MANAGEMENT AND ITS INCLUSION IN NETWORK NETWORKS

From the information presented in the Report for evaluation of the efficiency of the establishment of a social corporate enterprise in the field of the use of "green waste", it is necessary to conclude that despite the existing local experience and currently existing enterprises, defined themselves as social social entrepreneurship. remains almost imperceptible in the Municipality of Blagoevgrad. There is still a lack of recognition of social enterprises as an innovative model for creating employment for disadvantaged groups in the labor market, as well as a new form of active social inclusion. There is no practice of local government support for social entrepreneurship. In this direction, there is neither practical experience nor developed documents regulating such possible support at the local level. This hinders the definition of areas, policies and local issues where the opportunities of social enterprises are still untapped and severely underestimated.

In view of the trends (European and national) for the establishment of social entrepreneurship as one of the main factors for regional development, it should be noted that the accumulation of the the use of "green waste" experience in the municipality of Blagoevgrad in connection with the SP is not irrelevant. The reasons for the lack or unsatisfactory sustainability of project-funded activities in social entrepreneurship are considered. The important factors for achieving successful and long-lasting results in the field are known, the attitude of the community regarding the role and importance of social enterprises has changed. The long-term activity of TPKE "Rila" and the sustainability of the results are an example of the greater resilience of the cooperative enterprises in comparison with the traditional ones.

The picture of the level of development at the local level outlined so far imposes the conclusion that both options for the development of social entrepreneurship in the field of waste

management are possible - creation of a new social enterprise or expansion of an existing social enterprise. I.

The fact that the Law on Enterprises of the Social and Solidarity Economy is already in force would also have a positive effect. The fact that there is an increased degree of sensitivity of the local population on the topic related to waste management is also extremely important. Taking action to establish or develop a social enterprise in the field of waste management in the municipality of Blagoevgrad will meet the approval and support of the community, which is already largely aware of the environmental benefits of such action.

As opportunities to reduce the amount of landfilled biodegradable waste and increase its recovery, recycling or disposal in a way that does not endanger human health and the environment excite the population more and more seriously, these topics naturally unite local communities. . Finding effective and up-to-date solutions in the individual municipalities is of regional and national importance. The sharing of good practices between Social Enterprises with a similar subject of activity is a mandatory element of the strategy for action and sustainable results that every social enterprise that focuses on waste management should have.

In this sense, the presence of a sufficient number of SPs in the field of waste management is an important condition for the effect of their activities. Working in a network of organizations with a similar subject of activity has long had a proven effect, there are enough successful practices in this sense and arguments for the application of this model in various fields, including waste management.

VI. DEVELOPMENT OF ALREADY EXISTING ENTERPRISES AND / OR THE ESTABLISHMENT OF A NEW SOCIAL ENTERPRISE



According to information gathered on the occasion of the preparation of the Report for evaluation of the effectiveness of the establishment of a social corporate enterprise in the field of use of "green waste", as of 31.12.2019, in Blagoevgrad municipality there are 9 enterprises that self-identify as social.

Their activities are related to the provision of educational, social services, tailoring, production of paper packaging, provision of services for Internet businesses.

More than half of the self-identified as social enterprises in the municipality of Blagoevgrad have used funding under the Operational Program "Human Resources Development" 2014-2020. in which it was created. The difficulties are mainly related to finding a sufficient market and labor

force. Very few of them directly point to the lack of good enough management of the company as a problem, but the shared problems suggest this.

Unsuccessful, in terms of sustainability, is the participation of the Municipality of Blagoevgrad, in the period March 2009 - June 2011, in the project "Social Enterprise" Services in the home and garden ", OPHRD 2007-2013, Operation "Social Entrepreneurship. Promotion and support of social enterprises ". The main goal of the project is to achieve sustainable development of social entrepreneurship by providing new services in a social enterprise "Services in the home and garden". The main activities of the project include the development and testing in practice of a comprehensive model for marketing and operation of a social enterprise "Services in the home and garden" with the participation of people with disabilities and the long-term unemployed. Despite the successful implementation of the project, after its completion, no new social enterprise with a similar field of activity has been registered in the municipality of Blagoevgrad. This is still valid at the moment.

Despite the above facts, it should be noted that the municipality already has experience in the field of social entrepreneurship. Society has enough information about the benefits of a social enterprise and its ability to solve problems of local importance in an effective way. In this sense, in the municipality of Blagoevgrad there are conditions for the creation of a new social enterprise or the development of an existing one in a new field. The possible choice of this new area to be the management of biodegradable waste is also facilitated, as the municipality implements the following projects: "Design and construction of additional infrastructure / installation for pre-treatment of municipal waste and composting installation for separately collected biodegradable and / or green waste / for Development of the Regional Waste Management System of the Blagoevgrad Region, Including the Municipalities of Blagoevgrad, Simitli, Rila, Kocherinovo and Boboshevo "and" Design and Construction of an Anaerobic Installation for Separately Collected Biodegradable Waste for the Regional Waste Management System of the Blagoevgrad Region ".

The expected results from the implementation of the two projects are:

- Achieving a higher level of waste management in the municipalities of RWMS - Blagoevgrad according to the hierarchy of their management, set in the current legislation;

- Reducing the amount of landfilled waste by building a composting plant for separately collected biodegradable and green waste, an installation for pre-treatment of municipal waste and anaerobic installation of separately collected biodegradable waste and promoting their recycling and recovery;
- Organizing separate collection, recycling and utilization of biodegradable waste;
- Treatment and treatment of biodegradable waste in an environmentally safe manner;
- The construction of the installations and their commissioning will contribute to the achievement of the national goals set in the national legislation and in the National Waste Management Plan 2014-2020;
- Encouraging active public participation in waste management.

To the appropriate available conditions for the development of a social enterprise in the field of waste management should be added the extreme urgency of the problem of environmental protection and the need to take urgent measures on the spot.

Through the Program for performing community service by persons subject to monthly social assistance, which the Municipality of Blagoevgrad implements, according to the provisions of Art. 2, para. 4 of the Social Assistance Act and Art. 12 of the Regulations for implementation of the Social Assistance Act, on average about 200 persons of working age per month are engaged in activities for landscaping and cleaning of green areas (parks, gardens and inter-block spaces). It could be assumed that these people are potentially interested in the opportunity to direct their employment in this direction, but not through working out of community service, but through permanent employment. The program covers people who live not only in the town of Blagoevgrad, but also in the small settlements of the municipality, as the problem with waste management affects the entire territory of Blagoevgrad municipality.

From the preliminary data indicated in the Report for evaluation of the efficiency of the establishment of a social corporate enterprise in the field of use of "green waste" it is clear that through the projects of the municipality for construction of a composting plant for separately collected green waste, pre-treatment plant. of mixed household waste and anaerobic installation for separately collected biodegradable waste have been purchased and machinery, equipment and

facilities are to be purchased. The activity of the JV should focus on waste collection and waste disposal - activities for which the necessary equipment requires less financial resources.

With regard to the necessary human resources, it can be said that as a result of the projects and programs implemented in different periods in the municipality of Blagoevgrad, it is largely popular to accept waste management activities as an opportunity for employment. The idea is also popular with a large number of people from vulnerable groups. Last but not least, it should be noted that despite the demographic trends in the municipality of Blagoevgrad there are villages inhabited by able-bodied population, which can be involved in the activities of the Social Enterprise in the field of waste management. For this purpose, a Social Enterprise could be developed, which as an administration would be located in the town of Blagoevgrad, but would also carry out garbage collection and disposal activities in some of the villages. A report by GRAO-Blagoevgrad shows that villages with a population at the current address with over 100 inhabitants are 14 in number, villages with a population at the current address with over 500 inhabitants are 6 in number. Among those living in larger villages there are people of working age for whom the opportunity to work in the place where they live is a desirable choice. Waste management professions are not among the disappearing professions, which also makes them attractive to unemployed people.

From all the above it follows that the topic of creating / developing an existing Social Enterprise in the field of waste management is extremely relevant for the municipality of Blagoevgrad. The current conditions for such an endeavor in the municipality are also appropriate. There are all important factors that affect the environmental and socio-economic benefits of establishing a Social Enterprise in the field of biodegradable waste management.

Last but not least, it should be noted that the topicality of the topic catalyzes similar processes for the creation and development of joint ventures with a similar focus in many regions, not only in the territory of the Republic of Bulgaria (including border regions). The active involvement of Blagoevgrad Municipality in these processes will allow it to exchange experience and use the successful practices of organizations and joint ventures in the field that have achieved good results. The benefits of networking are well known, not only in terms of waste management organizations. Specifically for this area, it could be added, however, that the availability of modern machinery and equipment is extremely important for the efficiency of activities in the field. In view

of the activity of the municipality of Blagoevgrad, in terms of procuring the necessary machinery, facility and equipment, with a capacity allowing the service of neighboring municipalities, it is necessary to conclude that the establishment of a joint venture in the field of waste management would have prospects for regional development.

VII. SOCIAL SERVICES AND WASTE MANAGEMENT ACTIVITIES



In the municipality of Blagoevgrad there is an opportunity to use various social services. People who need support can choose from over 20 social services (institutions, residential services, day care centers). Almost half of the social services are intended for adults. Some of them are: three Family-type Accommodation Centers, three Sheltered Housing, two Day Care Centers for Adults with Disabilities, a Temporary Accommodation Center. It is characteristic of these social services that they provide an opportunity for inclusion in occupational therapy. It is mainly held on site, in the social services themselves. The most common is the functional-domestic and entertaining occupational therapy. Much less in their work the staff of some of the Social Services uses partial occupational therapy (light repairs, agricultural activities). In the residential services for adults with

mild disabilities on the territory of Blagoevgrad municipality, the support for the accommodated includes registration in the Labor Office or other licensed labor intermediaries, assistance for participation in appropriate trainings and courses for acquiring skills or professional qualification, assistance in finding and starting work, support (in some cases involving escorting from and to the workplace) in the initial period after starting work. As a result of these purposeful efforts, there are users of Social Services who are provided with employment.

Employees in these social services are unanimous in their opinion that the opportunity for employment, consistent with the capabilities and interests of people is one of the important conditions for achieving full social inclusion and lasting positive change in quality of life.

Increasing the popularity of the topic of waste management is a fact, especially among able-bodied users of social services. The reason is on the one hand the importance of the topic, and on the other hand the possibility for the emergence and development of new professions.

General activities related to waste management are not unknown to some users of social services and their family members.

Pursuant to the provisions of Art. 2, para 4 of the Law for social assistance and art. 12 of the Rules for implementation of the Social Assistance Act, as well as a framework agreement between the Social Assistance Agency and the National Association of Municipalities in the Republic of Bulgaria, Blagoevgrad Municipality annually develops a program for community service by persons subject to monthly social assistance on the territory of the municipality. The main goal of the program is to provide employment to unemployed people who are of working age and are subject to monthly social assistance, according to the Law on Social Assistance. The immediate goals of the program are: formation of work habits of the persons involved in the program; social integration of the unemployed and support for future employment; improving the living conditions and the living environment in the settlements in the municipality. The object of the program are all residents of Blagoevgrad municipality who are unemployed, of working age and receive monthly social assistance under the Social Assistance Act. Territorially, the program covers all settlements in the municipality of Blagoevgrad. Some of the types of activities performed are:

- Ecological:
 - cleaning and removal of unregulated landfills;

- loosening and enrichment of the soil; grassing of terrains; planting perennials;
- planting flowers and tree species; grassing and afforestation;
- Hygiene:
 - waste collection, loading and transportation;
 - maintenance and cleaning of roads, streets, sidewalks and other public terrains;
 - sweeping and cleaning of alleys;
- Others:
 - urgent activities to prevent or overcome the consequences of accidents and natural disasters, floods, severe natural conditions;
 - cleaning of riverbeds;
 - maintenance of streets, roads, sidewalks, squares, etc..

Although participation in this program is not in the category of social services, it is part of the policy to support people from vulnerable groups. Involving unemployed people in such activities has a positive effect on them, as it accustoms them to basic work habits, gives them the opportunity to get to know and gain experience in practicing a certain profession and through the results of their own activities to understand the importance of reducing and waste management. The activities included in the program are performed jointly by the Municipality of Blagoevgrad and Biostroy LTD (a company whose main activity is focused on sanitation and landscaping of settlements). This also has a positive effect on the experience and skills acquired by people who do community service under the program.

In order for the benefits of the various activities in social services to be channeled and fully used to provide sufficient human resources for the emergence and development of social enterprises operating, including in the field of waste management, it is necessary to add to the above services and:

- Opportunities for inclusion of the users of the services in additional forms of training for acquisition / improvement of skills and qualification, apart from those that can be organized in the social services themselves;

- Activities for informing and supporting social entrepreneurs on issues related to the specifics of hiring and providing employment to people from vulnerable groups;
- New mediation services: family labor consultant; post-employment counseling and mentoring; the so-called "mobile labor office".

VIII. ALTERNATIVE WASTE MANAGEMENT



Existing state of the collection and treatment of "green" waste on the territory of Blagoevgrad municipality

At the moment, the collection and treatment of "green" waste or it is the waste from public parks, cemeteries, roadside plantations and others. on the territory of Blagoevgrad municipality is

carried out by the municipal landscaping company. They are transported to a site where no technology is used to treat them. The municipality has taken measures for separate collection and utilization of green and biodegradable waste on its territory.

The Municipality of Blagoevgrad participates in a regional association for waste management - Blagoevgrad (RAWM-Blagoevgrad), together with four other municipalities - Simitli, Rila, Kocherinovo and Boboshevo to achieve the national goals set in the Bulgarian legislation at the regional level.

The existing waste management system on the territory of Blagoevgrad Municipality does not have technical facilities to implement the requirement for pre-treatment according to Ordinance № 6 on the conditions and requirements for construction and operation of landfills and other facilities and installations for waste recovery and disposal (Issued by the Minister of Environment and Water, promulgated, State Gazette, issue 80 of 13.09.2013, in force since 13.09.2013).

The activities for collection and transportation of household waste cover all settlements on the territory of Blagoevgrad municipality. The collection and transportation of household waste is carried out by the municipal company "Biostroy" EOOD. A mixed container system is used for the collection of solid household waste - with stationary and replaceable containers. The containers are placed in certain places, where they are serviced by specialized vehicles. The municipality has provided containers for separate collection of household waste from packaging by placing containers for separate collection. This activity is assigned to Eco Partners Bulgaria AD - licensed organizations for recovery of packaging waste.

On the territory of Blagoevgrad municipality a good organization and a stable basis has been created in terms of collection and transportation of mixed household waste from households and businesses, covering almost 100% of the population. However, the municipality has not yet introduced a system for separate collection, separation and utilization of biowaste, which is critical, both in terms of achieving the statutory quantitative targets for the reduction of landfilled solid waste, and in connection with the application of the management hierarchy of waste.

In recent years, as a reflection of the established pan-European management practices, the tendency towards transferring more powers in the direction from the central to the local authorities of activities and responsibilities, mainly related to improving the quality of life at regional and municipal level, has become more noticeable. through sustainable management of environmental

components. Among them, the obligations of the local government regarding the environmentally friendly management of municipal solid waste in compliance with national and European legislation in this area stand out.

Within the framework of RWMS-Blagoevgrad, the implementation of several significant projects of public interest in the field of waste management is forthcoming. Soon (after some delay) the Regional landfill for non-hazardous waste disposal was put into operation - part of the Regional Waste Management System - Blagoevgrad. It is also planned to build on the site of the landfill: an installation for composting of separately collected green and wood waste and an installation for pre-treatment of mixed household waste with a module for stabilization of residual organic fraction, as well as in a property adjacent to the landfill. installation for anaerobic digestion of biodegradable waste with a subsequent module for composting the fermentation material and cogeneration system, applying in practice the integrated approach to achieve the best possible environmentally friendly and sustainable management of organic waste streams, consistent with coverage of the normative-set goals (regional and national) for diversion of the quantities of solid household waste from landfill.

Measures for separate collection and treatment of biodegradable and green waste

The Municipality of Blagoevgrad encourages the management of waste on its territory by taking various measures for separate collection and utilization of biowaste and diversion from their disposal.



Fig. 1. Biodegradable waste and compost

Home composting is one of the preferred and most environmentally beneficial measures to reduce biodegradable waste. Through it, households can utilize a large part of their food and garden waste. This saves resources for the collection, transportation and recovery of this waste and reduces harmful greenhouse gas emissions. The municipality will encourage home composting by explaining the benefits and techniques of composting garden and food waste from the home and will provide free containers for home composting where separate collection of garden waste from households is not appropriate.

The use of waste as a substitute for primary natural resources, instead of landfilling, is at the heart of European and national resource efficiency policies. An additional effect of utilizing biodegradable household waste instead of disposing of it is the prevention of greenhouse gas emissions - methane, which is released from landfills. That is why European and national legislation has set requirements for the gradual reduction of landfilled biodegradable waste. Based on the good European practices, the national legislation also introduced requirements for utilization of household biowaste. The goals for recovery of biowaste are considered to be fulfilled by the municipalities provided that the biowaste is collected separately at the source of generation, transported and handed over for recovery. In addition, the Ordinance on separate collection of biowaste requires the mayors of municipalities to ensure that the entire amount of generated biowaste from the maintenance of public areas, parks and gardens on the territory of the respective municipality is collected separately and recovered.

Biowaste processed by home composting is considered as waste prevention legislation. This helps to meet the targets for reducing the amount of landfilled biodegradable waste, but this biowaste is not considered to meet the targets for biowaste.

In order to improve the management of household biodegradable and biowaste by 2020, the Municipality of Blagoevgrad aims to implement this sub-program as a very important part of the Municipal Waste Management Program by 2020.

The legislation enables each municipality to achieve the goals independently or together with other municipalities, depending on the decision of the General Assembly of the respective RWMS and the available infrastructure for waste treatment in the municipality and the region.

The implementation of the targets for biodegradability, incl. biowaste, will reduce the quantities of landfilled municipal waste, and in addition will release the municipality from payment of deductions under Article 64 of the WMA and will increase the service life of the used cell of the regional landfill.

In order to achieve the goals for the management of biodegradable waste, incl. and biowaste, Blagoevgrad Municipality will take significant measures by 2020.

The most important measure for fulfilling the goals for recycling / utilization of biowaste and diversion from their disposal is the provision by the municipality of a composting plant for green waste and organization of a system for their separate collection. It is also important to regulate the system for separate collection of biowaste in the additions to the municipal Ordinance on waste management. The municipality has a suitable site for construction of a composting installation. of the Municipality of Blagoevgrad and representing the site of the existing landfill, uses Blagoevgrad, with a total area of 105,441 decares).

RWMS-Blagoevgrad faces the challenge of early introduction of a regional system for separate collection of household biodegradable waste, and for this purpose it is planned to develop in advance measures on information, regulations (with amendments to municipal regulations for waste management), financial and public provision of the means, mechanisms and instruments with which this will be achieved. With the forthcoming preparation of regional projects related to the treatment of organic waste, for the provision of a large part of the necessary elements (equipment and containers for separate collection of biowaste) of this system, will be delivered during their implementation.

Infrastructure for separate collection and treatment of biodegradable and green waste

The site on which the regional landfill is planned to be built is located at the foot of the eastern slopes of Vlahina Mountain, northwest of the village of Belo Pole, next to the road to the village of Buchino, Blagoevgrad region. The site covers the properties Land Property № 000733, PI № 000272, part of PI № 000453 and № 000271, Teketo locality, in the land of the village of Buchino, Blagoevgrad municipality, EKATTE 07168 and PI № 053020, Tsalinite locality, in the

land of the village of , Blagoevgrad Municipality. The relief in the area is mountainous. The average altitude in the area of the landfill varies from 345 to over 420 m.

The total area of the site is 106 decares, covering the lower part of a ravine (about 400.0 m from its discharge into the Struma River) with a narrow terrace at the bottom and steep slopes. At the foot of the right slope there is a correction of the gorge with “U” shaped reinforced concrete elements, open at the top with internal dimensions of 2.40 / 1.20 m and a single length of 3.0 m. The embankments of old waste are located along the entire length of the site on the terrace at the bottom and the left slope of the terrain. The largest accumulations are around the entrance of the landfill, with a height of over 20.0 m, measured from the level of natural terrain (bottom ravine).

The capacity of the planned landfill for non-hazardous waste is set at 574,240 m³ of waste. The topographic, geological, hydrogeological and hydrological conditions of the site have been studied in order to apply the best organizational framework for construction and installation work, taking into account the various possibilities and limitations of the site. The project of the landfill envisages the construction of:

- Insulation on the bottom and slopes of the landfill (lower insulating screen);
- Infiltration water drainage system;
- Infiltrate water tank with Wastewater Treatment Plant (WWTP);
- Surface water drainage system;
- Landfill for waste from the vertical planning of the site;
- Exhaust system;
- Security fence; and
- Control and measuring system.

For the functioning of the landfill and the proper course of its operation it is planned to build:

- Reception area - where they are located:
 - The administrative and residential building - with working and living quarters for the staff, incl. laboratory;

- Transformer substation;
- Checkpoint - for acceptance, identification of garbage trucks, verification of waste for compliance, marking, processing and storage in a computer system with software of information about the waste received in the landfill and referral to treatment sites;
- Truck scales with electronic scales for waste acceptance;
- Bathtub for washing the tires of garbage trucks when leaving the site;
- Service area - there is a workshop and a garage;
- Internal operational roads;
- External power supply;
- External water supply;
- External collector for treated polluted water;
- Security fence;
- Forest protection belt.

✚ **Installation for composting of separately collected green and wood waste**

The composting plant is financed under procedure №BG16M1OP002-2.002 "Combined procedure for design and construction of composting plants and plants for pre-treatment of municipal waste" under priority axis 2 "Waste" of the Operational Program "Environment 2014 - 2020" , part of the Regional Waste Management System - Blagoevgrad. The installation will have a capacity of 2,516 t / year. The planned year of commissioning is 2021.

The installation will be located on the territory of the regional landfill and will operate only with separately collected green and wood waste. The chosen technology is installation in open cages with a canopy, with an automated system for displacement and mixing.



Fig. 2. Composting in open cages with a canopy

Aeration is provided to the system, which is a prerequisite for a faster and higher quality composting process. Due to the planned aeration of the first 25 m of the line and the nature of the incoming streams - green and wood waste, no composting is envisaged, on the one hand due to the higher moisture content in the green waste, on the other - due to daily mixing of the material. . The figures below show the installation in operation mode and when moving the automated system.

The described composting line reduces to near zero the residual waste from poor quality produced material, which could not be defined as compost. The line allows this material to be used as a sealant and re-treated in it, mixed with the incoming shredded material.

Operating costs are low due to system automation. The service personnel is reduced to two (maximum up to five) shift workers responsible for receiving the separately collected green and wood waste, controlling the quality of the incoming material, shredding, loading the line, setting up the automated system, if necessary and controlling the outgoing product.

The relative purity and homogeneity of the separately collected green waste is a prerequisite for obtaining a high quality end product - compost. This compost will be used in the spring and autumn fertilization of green public areas in the five municipalities of RWMS-Blagoevgrad. The

compost obtained in November and December should be stored and used together with the compost obtained from the first cycle of work the following year for spring fertilization and planting of flowers.

The technology for composting in open cages with a shed, through an automated mixing and mixing system is suitable for conditions where the maintenance activities for the proper course of the composting process are low depending on the climate, and the machines used are low operating and simplified. service. Operating costs are optimized because the system is automated and there is no need for continuous availability of service personnel. If the installation has automatic filling, the presence of a work team is required only when programming the cycles.

↳ **Installation for pre-treatment of mixed household waste**

The pre-treatment plant is financed under Procedure № BG16M1OP002-2.002 "Combined procedure for design and construction of composting plants and pre-treatment plants for municipal waste" under Priority Axis 2 "Waste" of the Operational Program "Environment 2014 - 2020". "As part of the Regional Association for Waste Management Blagoevgrad Region. The installation will have a capacity of 24,117 t / year. mixed collected household waste, and the planned year of commissioning is 2021. The installation will be located on the territory of the regional landfill, in a multi-level structure together with the installation for composting of separately collected green and wood waste.



Fig. 3 Pre-treatment plant

The installation will ensure the separation of the largest possible amount of recyclable fractions from the flow of mixed collected municipal waste, which will then be handed over for recycling and recovery.

The pre-treatment plant includes an optimal combination of mechanization, equipment and manual labor. Recyclable waste streams have been studied and analyzed so as to achieve satisfactory results in their pre-treatment and separation. The line is tailored to the specifics of the waste, taking into account the risk positions that may affect the process. Initial pre-sorting of bulky waste is provided, as well as equipment to help maximize results. This high-tech line will allow for unimpeded operation and full achievement of the goals for diversion of recyclable waste from landfill, set for implementation by the municipalities of RWMS-Blagoevgrad. The technological process ends with pressing and baling of the separated waste for their convenient and compact transportation to the recycling factories. The system also has a module for stabilization of the residual organic fraction before its disposal.

Description of the necessary equipment:

- front loader;
- belt conveyors (conveyors);
- bag opening machine;
- drum / vibrating sieve;
- magnetic separator;
- area for manual sorting;
- cells / containers for sorted waste;
- baling machine; and
- system for stabilization of the organic fraction.

Description of the facilities:

- site of the installation for preliminary treatment of household waste with a storage area for separated, baled waste;
- module for stabilization of organic waste.

Description of the technological process:

1. Submission of untreated waste by means of a front loader;
2. Primary sorting - separation of large inert waste;
3. Passing through a bag opening machine;
4. Screening through a drum / vibrating sieve:
 - waste passed through a sieve falls into a container located under the second sieve - this waste will be stabilized in a container for waste stabilization.
5. Manual sorting area:
 - paper / cardboard;
 - plastic;

- textiles;
 - rubber;
 - leather;
 - glass;
 - metal;
 - and aggregates that are not sorted, but taken along the line in the final container.
6. Passing through a magnetic separator;
 7. Storage in a container for residual waste;
 8. Baling machine for baling paper, cardboard and plastic;
 9. Shredding of residual waste;
 10. Storage area for separated waste.

The power supply of the installation and its separate parts is carried out by means of a front loader. The sieve fraction and the residual waste are subject to fragmentation and subsequent stabilization.

After sorting the waste, only a small part of it will be disposed of. Aggregates will be completely disposed of due to inability to be recovered or stabilized.

↳ **Installation for anaerobic digestion of separately collected biodegradable waste**

The following technology will be used in the implementation of the investment proposal, namely technology for anaerobic digestion by the method of dry fermentation with subsequent installation for aerobic digestion and cogeneration module.

In the dry methanization process, it is not necessary to dilute the substrate with water, therefore the resulting secondary biomass is dry. This means that no dehydration is required. The process is not affected by the non-degradable fractions of aggregates in the raw materials, as they can be removed later (after the stabilization of organic waste).

Installations for the production of energy from biomass by dry fermentation consist of the following main elements:

- facilities for storage of raw materials (biomass);
- bioreactors / fermenters;
- biogas tank / gas holder /;
- current generator;
- composting of the fermentation product;
- control and automation system.

Below is a diagram of the dry fermentation process in combination with cogeneration and composting of the fermentation product.

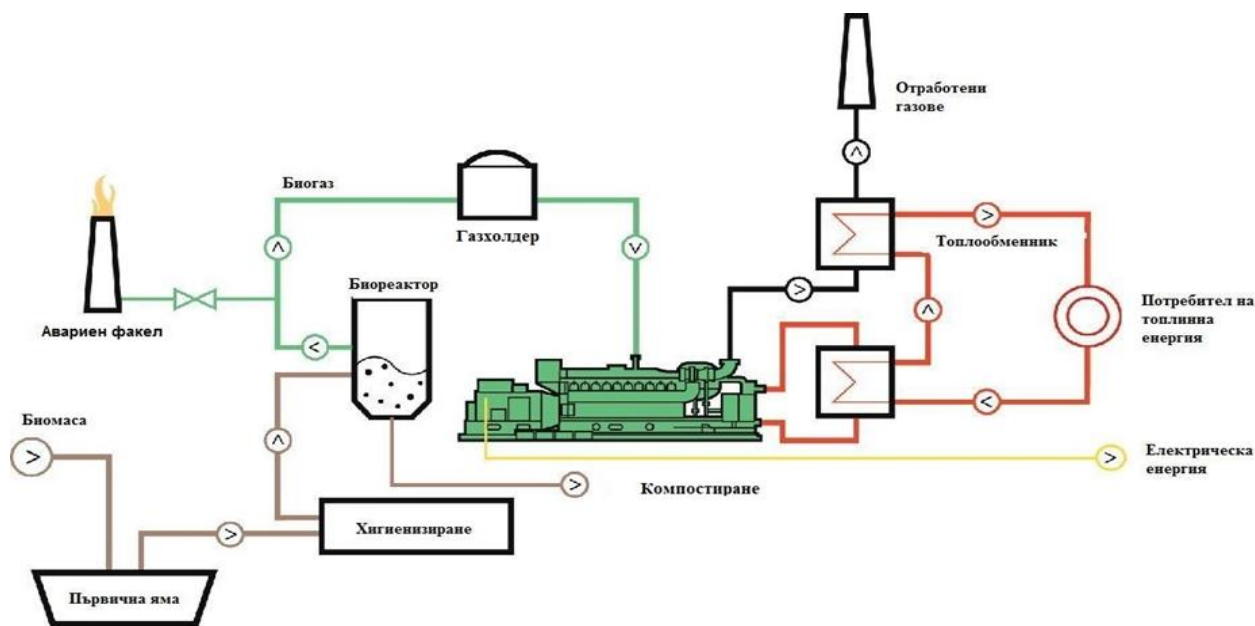


Fig. 4. Scheme of the elements of dry fermentation in combination with cogeneration

As the dry fermentation process takes place in deaerated, hermetically sealed facilities (bioreactors), no bad and unpleasant odors are emitted. Bioreactors, also called fermenters, are gas-tight, concrete chambers that look like garages (Figure 5).



Fig. 5 Bioreactor / fermenter

The fermenters are equipped with hydraulically operated, gas-tight, steel doors. They have pneumatic rubber seals, which when pressed against the concrete structure ensure the hermetic closure of the inlet. Before opening, the air from the seals is released. They open from the bottom up to prevent jamming and damage to operating machines. The inflatable seals are located at the ends of the doors and are thus additionally protected from damage. The fermenters operate at a slight overpressure, which further prevents the formation of an explosive gas-air mixture even in the event of a leak.

Organic matter or biowaste is loaded into bioreactors by means of a front loader (Figure 6).



Fig. 6. Charging a bioreactor with a front loader

Explosions during the phase of transition of the medium from methane to air (when opening the fermenters) are impossible, as the formation of an explosive gas-air mixture is not allowed. During the emptying and filling of the fermenters, a special vacuum system ensures a constant flow of fresh air and ventilation of the bioreactor.

In dry fermentation, the biowaste is constantly watered with the fermented liquid generated by them - percolate, which guarantees ideal conditions for the development of bacteria. The temperature is maintained according to the currently required process conditions, and it is possible to add substances to catalyze the results of the process. The temperature in the insulated fermenters is regulated by means of heated floors and walls in contact with the fermenting materials. No additional mixing, pumping and addition of additional material is required. The pipes of the heating system are built into the concrete floors and walls during their casting. In this way, any obstructions inside are avoided. The dewatered liquid is heated by a heat exchanger located outside the fermenters. As a result, the temperature in the fermenters is controlled very precisely.

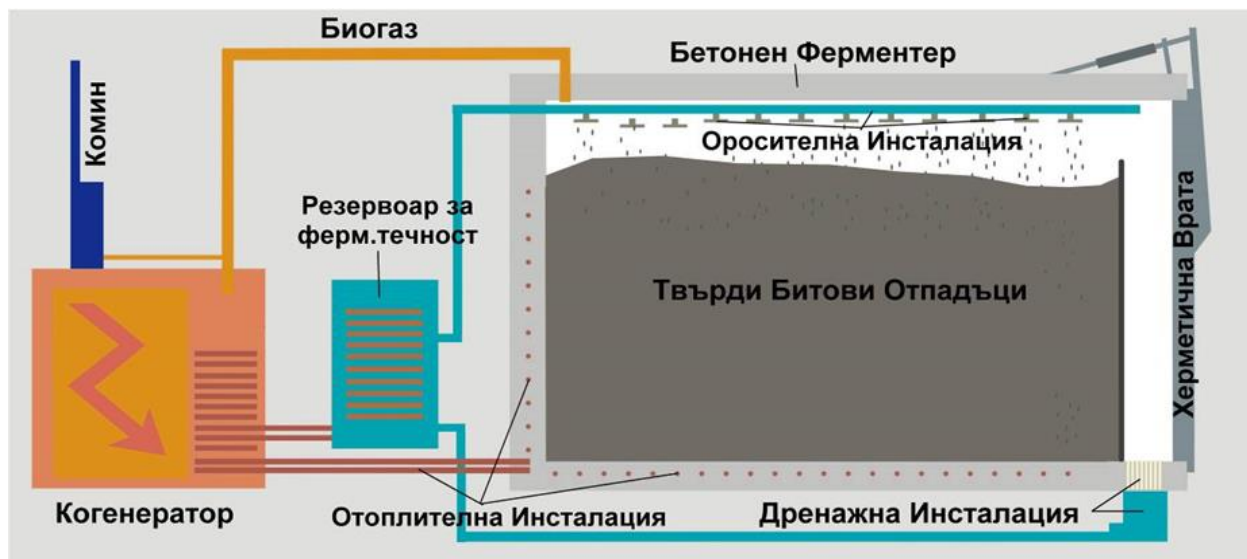


Fig. 7. Irrigation of the bioreactor and cogeneration of the obtained biogas

The liquid with which the raw materials are watered (percola) is collected through a drainage system and stored in a tank. In it, if necessary, the liquid is heated again and again sprayed on the biowaste in the fermenter. The fermentation is carried out at a "mesophilic" (favorable for fermentation) temperature of 34 - 37 ° C. The temperature is regulated and maintained by a built-in floor and wall heating system.

The continuous production of biogas is guaranteed by the simultaneous operation of the fermenters. After completion of the fermentation process (complete decomposition of the biomaterial), the already inert material is removed from the fermenters for further processing (separation of ferrometals, glass, high quality humus, plastics, paper, wood, and other usable fractions).

The technology is very simple in construction. The method is a one-step "continuous" process. The different stages of decomposition of biomaterial (ie hydrolysis, acid and methane formation) take place in the same fermenter. By "continuous" is meant that no material is added or removed during fermentation and the biowaste remains in the fermenters until the end of the decomposition process (residence time).

During the dry methanization process, the biogas obtained from the process is dried and its quality and quantity are constantly measured. It is then fed to the cogeneration module via the gas control and transmission system.

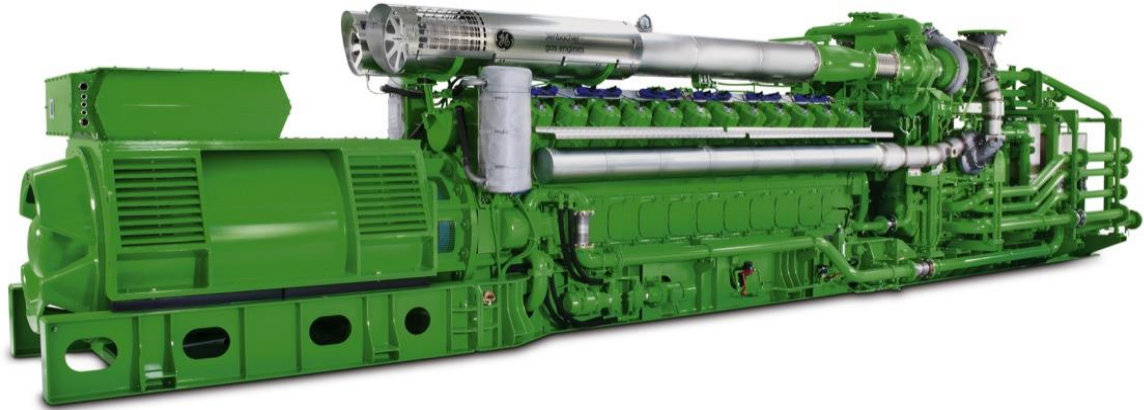


Fig. 8 Cogenerator for production of heat and electricity from biogas

The cogenerator is proportional to the amount of gas produced and therefore it is not necessary to build expensive gas storage facilities. Only the space above the fermentation material is used for temporary storage. The cogenerator converts the energy of biogas into electricity and heat. Thermal energy is created through cogeneration and can be used for heating buildings, producing hot water or heating air. Electricity can be sold to ERPs at preferential prices, and heat could be used for district heating or industrial processes.

The processes in the dry fermentation plants are computer controlled and monitored. The changes in the dew cycles, the temperature, as well as the parameters of the biogas are regulated separately for each bioreactor. Constant monitoring and control of the parameters allow optimizing the process and consequently - high and reliable biogas yield. The control room of the installation is located so as to provide constant visual monitoring of the doors of all fermentation cells.

After completion of the dry fermentation process, the material is removed from the cage by means of a front loader. As the methanization process is "dry", it is not necessary to separate liquids by presses or centrifuges. The fermented material is stored in piles and allowed to stabilize (compost) for about 3-4 weeks.

During anaerobic digestion, nitrogen and phosphorus are mineralized, and the residual product of fermentation is an excellent fertilizer (compost) for nourishing the soil. The compost obtained after fermentation in the dry methanization plants has very good qualities, because it has reduced aromatic compounds, so that the strongly smelling substances are processed and the obtained fertilizer practically does not smell. The compost obtained after biogas production also has excellent nutritional qualities. Compost can be imported both before sowing and during the growing season, because it does not harm the plants. This can reduce the use of non-mineral fertilizers in fertilizing plants and therefore the use of fertilizer as a product of dry methanization leads to protection against contamination of drinking and groundwater.

IX. GUIDELINES FOR AWARENESS OF CITIZENS



A very important role in raising citizens' awareness is to encourage their active participation in the field of waste management. Informing the public and business about waste management is

necessary and beneficial to achieve the goals of reducing the amount of waste generated and its recovery and is key to the success and good results of waste management systems according to the hierarchy for their management. Information campaigns to raise public awareness and consult with participants in the waste management process will contribute to understanding the potential opportunities and benefits for environmental protection arising from the recovery and recycling of waste.

The Waste Management Program 2015-2020 sets out specific measures to achieve the objectives of waste management, one of which is informing the public and business about waste management activities. The Municipality of Blagoevgrad has taken targeted measures to raise general awareness of waste reduction and its use as a resource and for separate collection of municipal waste. The measures are aimed at building environmentally friendly behavior and increasing the active participation of the public and business in waste management in the municipality of Blagoevgrad.

In order to raise the awareness of the citizens, up-to-date information regarding the waste management activities is published and disseminated. For organizing and conducting information and awareness campaigns on waste management activities, the population and businesses are notified through the website of the Municipality of Blagoevgrad, as well as through the media or in another appropriate way.

The waste management experts from the municipal administration - Blagoevgrad plan and develop aids, guidelines, brochures and other information materials, as well as through appropriate techniques or schemes stimulate the active direct participation of the population in activities for separate collection of different streams of household waste. Also, special attention is paid to the work with students and children from schools and kindergartens in the municipality, given the creation of sustainable attitudes and behavior in waste management. Through periodic surveys among residents, the Municipality will maintain feedback and engage the public in the decision-making process on waste management policy. The surveys will also serve to measure the results of the activities carried out to inform the public about waste prevention and compliance with regulatory requirements for the management of various waste streams. With the implementation of the three projects under priority axis 2 "Waste" of the Operational Program "Environment" 2014-2020, which are currently being implemented, it is planned to organize information campaigns to

raise public awareness of separate collection of biodegradable and green waste, as well as the process of composting of separately collected green and / or wood waste and anaerobic decomposition of biodegradable waste.

With the implementation of the activities set under the project "Green employment in biodegradable waste management" (Green_Crew), this will help to present and promote alternative ways of composting biodegradable and green waste, exchange experiences and share good practices in the field of waste management, which the Municipality of Blagoevgrad will be able to implement in practice. Thus, it is expected to encourage the population to separate collection of biodegradable waste by raising awareness and their active participation to achieve the goals in the field of biodegradable waste management. This will lead to an increase in social services in the field of waste management and the growth of the local economy.

Increasing the participation and interest of the population in the prevention and separate collection of waste requires the construction of informed behavior by implementing specific measures in this direction.

Informing the public and business about waste management is necessary and beneficial to achieve the goals of reducing the amount of waste generated and its recovery and is key to the success and good results of waste management systems according to their hierarchy. management. Public awareness campaigns and consultations with participants in the waste management process will contribute to the understanding of the potential opportunities and benefits for the environment arising from the recovery and recycling of waste.

At the municipal level, the population should be informed and involved in the decision-making processes regarding waste management. Communication goals can be divided into two categories:

- raising public awareness and training and
- communication with the participants in the waste management activities.

Raising public awareness has the long-term goal of achieving a change in population behavior by recognizing the environmental risks associated with resource depletion, waste generation and disposal.

Training and communication is a process through which on the one hand information is provided to the participants, and on the other hand ideas and activities on waste management are exchanged and

evaluated. Education and communication with the participants in the waste management activities is extremely important for:

- providing information on waste management policy;
- receiving information, feedback and support from the participants in waste management;
- supporting the formulation, discussion, adoption and implementation of activities concerning the financing and reimbursement of expenditure.

The measures and campaigns that the municipality has introduced and imposed over the years are effective, but most of them do not reach the population in a broad enough aspect. It is necessary to organize more different campaigns to attract the population to the activity. The population is a key player in the waste management process because it is a constant generator of waste and must therefore be informed about the environmental impact caused by waste disposal, as well as the opportunities and responsibilities for waste prevention and recovery.

Making the right decisions and implementing the measures set out in the municipal program must be achieved with an optimal balance of interests of the various participants in waste management. This requires a continuous dialogue with the participants in waste management activities and the organization of public awareness campaigns. The measures that need to be taken are for:

- the involvement of the population, non-governmental organizations and the interested industry in the decision-making processes on waste management issues, with special emphasis on the way of determining the “municipal waste fee” and the reporting of the funds spent;
- raising public awareness in order to achieve a change in the behavior of the population by recognizing the environmental risks associated with depletion of resources, generation and disposal of waste;
- conducting competitions, celebrations, public events, organized especially for the purpose or included as part of the programs for celebrating holidays of the municipality or a specific settlement, with special attention should be paid to the work with adolescents;

- receiving feedback on the success of the applied waste management measures.

Also, given the legislative changes in the field of waste management, it is necessary for the population to get acquainted with them, with the new requirements for waste treatment and management, the imposed hierarchy, as well as with the problems for the municipality to reach them and the damages and lost profits. of the requirements. It is necessary to organize acquaintance of the population and companies with each stage of the hierarchy for waste management, as well as the necessary ways and actions for reaching. In order to properly organize these activities, it is good for the municipality to prepare a schedule and summary proposals for the implementation of specific campaigns, as well as to determine the necessary resources for this. If this schedule is announced in advance to the population, it will be easier to organize at a later stage, and the population will be prepared for it. It is also good for the municipality to prepare brochures, leaflets, etc., which will make it easier to understand the message of good waste management and recycling.

X. INFORMATION USED



1. *Directive 2006/12 / EC on waste*
2. *Directive 1999/31 / EC on the landfill of waste*
3. *National Waste Management Plan 2014-2020*
4. *Municipal Development Plan of the Municipality of Blagoevgrad 2014-2020*
5. *Waste Management Program Blagoevgrad Municipality 2015-2020*
6. *National strategic plan for gradual reduction of the quantities of biodegradable waste intended for landfill 2010-2020.*
7. *EU Europe 2020 strategy*
8. *Pre-investment studies for the installations*
9. *Guidelines for applying for funding under OPHRD 2007-2013.*
10. *Guidelines for applying for funding under OPHRD 2014-2020.*
11. *Guidelines for applying for funding under OPE 2014-2020.*
12. *Law on Environmental Protection*
13. *Waste Management Act*
14. *Law on the Enterprises of the Social and Solidarity Economy*
15. *Law on Social Assistance*
16. *Municipal strategy for development of social services 2016 -2020*
17. *National Strategy for Poverty Reduction and Promotion of Social Inclusion 2020*
18. *National concept of social economy*
19. *National Youth Strategy 2010-2020*
20. *Long-term employment strategy for people with disabilities 2011-2020*

21. Opinion of the European Economic and Social Committee on 'Cooperatives and Restructuring' (own-initiative opinion).