

INNOVATIVE COMPLEX OF PROCESSING OF RECYCLING DOMESTIC WASTE

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The result of the present project is the construction of a new complex on processing of recycling domestic waste, organization of production and sales of recyclable material left after processing 163 tons of domestic waste per day.

The company «Metallist» has an experience in recycling domestic waste processing, production and sale of recyclable materials of more than 24 years. One of the most difficult tasks for modern Ukrainian waste management company is to research, development and introduction of economically effective and environmentally acceptable methods in the arena of treatment and municipal domestic waste, generated daily as a result of everyday human activities.

Currently, located in the village Proleski of Boryspil district, Kyiv region. The complex is planned to be located on the territory of the test site for storage of slag on a land plot with the area up to 2.5 acres. The complex is valued at \$400,000 and designed to process up to 50,000 metric tons of domestic waste per year. The structure of the complex features: entrance-weight with electronic scales of 60 tons, the sorting line with 12 stations for manual sorting of waste and the electromagnetic separator for the selection of ferrous metals, presses for packing of secondary raw materials (waste paper, polymers), loader with grab seizure and bucket trucks, household premises of modular type.

The technological process provides for:

- reception of wastes with their further supply grab seizure in the line;
- mechanized gap packages with waste management;
- separation of waste at vibraseparator with the rejection of fine fraction and food waste with the subsequent delivery of them to landfill for disposal;
- delivery of waste to the cabin for manual selection of PET-bottles, solid polymers, glass, paper and cardboard, metal cans and (possibly) polyethylene film;
- screening of ferrous metals;
- briquetting of waste paper, cardboard, PET-bottles, solid polymer, polyethylene film with help of press machine;
- transfer of «left over» of the balance to local waste burning plant «Energy» for the incineration;
- sale of secondary raw materials to consumers.

The basic suppliers of raw material (waste) – private and communal enterprises (more than 20 enterprises) in 25 km area of the land plot. Delivery of waste to the

complex is carried out by contracted carriers at the price of \$7.9 per ton and volume of 100 – 150 tons per day. They are strategic partners-suppliers, because of the advantageous location and the little remoteness of the polygon from their production facilities, which produce waste.

By estimations of experts in connection with the transition innovative, cost-effective technological demand for recyclable materials is growing and exceeds the power and assortment capacity of the existing competitors. The period of construction and launching of the project for sorting and recycling waste is 3 months. The qualified experts directly involved with project – 35 persons (25 – technical staff and 10 administrative).

The project will allow the enterprise to increase the volume of sales and to receive additional profit. The gross income from the activity – \$1,3-\$1,9million a year, net income – \$390,000 – \$650,000 a year. Payback period – 12 months (return of the investment amount). Under such conditions it is expedient to increase the complex productivity up to 100-150 thousands tons of waste per year with the production of alternative fuel and compost and biogas.

The total value of the investment cost is \$400,000 and includes the elaboration of the technical project, construction of the facility, the acquisition and start-adjustment of equipment, formation of the circulating capital. Financing of the project is planned to be at the expense of investment funds of the initiator of the project. Support of investment funds – guarantee obligation of «Metallist» in the form of slag not less than the volume of 5,000 tons per month at a purchase price \$3 per ton, which equals \$15,000 a month.

When incorporated in the calculations of the level of income, current and investment costs of the new complex on processing of recycling domestic wastes, organization of production and sales of recyclable materials can be considered as an effective, financially sound, and revenue increasing.

Payment components are as follows (prices 2012):

Gross income – \$1.093,110

Gross expenditures – \$704,580

The annual profit – \$388,530

Income taxes – \$89,361

Annual net profit – \$299,169

The value of the payback period of the full investment cost has a high sensitivity to a change in income level of the project. To save the payback period within 1 year, level of income should not be reduced by more than 3-5% of the mortgaged in the calculations. Permissible limits of increase of recurrent and investment costs are 20% and 10% respectively.

Realization of project will allow for:

- reception of WASTE delivered by sanitation cars to the territory of the enterprise;
- selection and crushing of large-sized garbage;
- waste sorting with manual selection of different types of secondary raw materials at the sorting conveyor mechanized dropout non-recyclable fractions;
- selection of ferrous metals;
- selection of non-ferrous metals;
- biological processing of organic part of the waste in marketable compost;

- thermal processing or pressing non-recyclable part of the solid domestic waste;
- pressing of secondary raw materials;
- cost of disposal of non-recyclable waste;
- high profitability of the processing;
- absence of toxic emissions into the atmosphere, pollution of soil and water resources;
- an integrated approach, ensuring the full utilization of the resource-based raw materials potential of solid domestic waste;
- use of proven in practice innovative technology and reliable equipment;
- investment attractiveness business and the possible leasing schemes of financing.

ЕКОНОМІЧНИЙ АНАЛІЗ І ОБЛІК ФАКТОРІВ ФІНАНСОВОЇ БЕЗПЕКИ ТОРГОВЕЛЬНИХ ПІДПРИЄМСТВ

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Для оцінки впливу факторів на фінансову безпеку торговельних підприємств України, та встановлення найвпливовіших із них, було використано евристичний метод економічного аналізу, а саме метод експертних оцінок. В якості експертів було обрано експертів з кола керівників, спеціалістів, що мають високий рівень обізнаності об'єкту дослідження, характеризуються професіоналізмом, компетентністю та практичним досвідом щодо управління торговельними підприємствами Подільського регіону [1, с. 17].

Оцінка експертом відносної важливості чинників здійснювалась шляхом присвоєння їм балів в межах від 0 до 10. Нуль присвоювався у випадку, якщо, на думку експерта, чинник немає суттєвого значення, а 10 балів – чинник має найбільший вплив.

Експертам було запропоновано оцінити окремо фактори зовнішнього середовища та внутрішнього середовища. Розподіл думок експертів щодо оцінки впливу зовнішнього середовища та визначення їх деструктивного впливу представлено у таблиці 1.

Респондентами виділені фактори, що найбільше впливають на фінансову безпеку торговельного підприємства:

- політична нестабільність;
- зміна цін на сировину, матеріали, енергоресурси тощо;
- падіння попиту на продукцію;
- зростання відсоткових ставок за кредитами, неконтрольована грошова емісія, інфляційні процеси, нестабільність валютно-грошової політики;
- рівень податкового навантаження;
- криза грошової і фінансово-кредитної систем.