

Production of the «Isofacade» System for Warmth-Keeping of Outside Walls of Buildings

A. Project Opportunity Description:	
A1. Project Name:	Production of the «Isofacade» System for Warmth-Keeping of Outside Walls of Buildings
a. Short name:	«Isofacade»
b. Full name:	Production of the «Isofacade» System for Warmth-Keeping of Outside Walls of Buildings
c. Summary description:	<p>The «Isofacade» is a natural two-layer composition of polyurethane, acting as a heat-insulation material, and high-quality clinker mortar. The new warmth-keeping system is of domestic design and notable for its high durability of decorative materials and improved architectural-decorative qualities. The «Isofacade» is a warm, energy-saving design compliant to all the requirements moved to heat-insulation elements, since it results in a 40% cut in heating costs and improves the durability of buildings and structures. The «Isofacade» is designed for facing old and prefabricated blocks of flats and ensures both heat and sound insulation; it may be used for partial repairs of houses, namely, for patching cracks and plaster defects. The «Isofacade» system will allow making use of various decorative solutions.</p>
A2. Progress Status:	<p>Specifications for «Isofacade» heat-insulation mats have been designed. Based on application of «Isofacade» mats in construction, we have elaborated guidelines and a catalogue of technical solutions for the system of warmth-keeping in buildings. We have made technical and economic calculations of the efficiency of application of the «Isofacade» heat insulation mats for warmth-keeping in buildings. Currently, the elaborated documentation has been sent to co-ordination and reviewing. The Business Plan is in its final stage of development. The supplier of the equipment and process technology has been chosen. The detailed project is now at its design phase.</p>
A3. Organizations involved and their roles:	<p>1) The «Minsk Construction Materials Plant» OJSC is the enterprise, which is maturing the new products – «Isofacade» mats: Ivanovskiy I.K., Plant Manager, tel.: (+375-17) 251-91-33. Raseenkova L.V, Chief Engineer, tel.: (+375-17) 251-93-12; 2) The Companies «Zigelfabrik Kegelman GmbH» and «Isoklinker Produktions GmbH» are potential suppliers of the equipment and process technology for «Isofacade» manufacture: Dirk Kegelman, Company Director, tel.: (8-07841) 10-98, fax: (8-07841) 2-77-98; 3) The «NIPTIS Institute» Unitary Enterprise is the body in charge of designing technical specifications and draft guidelines on design and installation of the «Isofacade» warmth-keeping system: Designer in Charge, Head of Working Group, Department Head of the «NIPTIS Institute» UE. Pashkov A.P., Candidate of Technical Sciences, Senior Scientific Collaborator, tel.: (+375-17) 263-52-57; 4) Ministry of Architecture and Civil Engineering: 39, Miasnikova Str., Minsk, 220048, Republic of Belarus. Vergeichik Maria Ivanovna, tel.: (+375-17) 227-85-21.</p>
A4. Project Description:	<p>Application of the «Isofacade» in the country will enable to use anew the functional capabilities of ceramic articles in combination with heat-insulation functions of the materials, and, which is especially crucial, to extend the service life of the housing fund of the Republic. Besides, the new production facility is aimed to obtain warm and energy-saving structures. With no need of any preparatory works, the «Isofacade» mats are fixed by means of dowels directly to the outside wall, thus excluding time-consuming works of building foundations, and, as a rule, there is no need to extend channels and roof projections. Thus, it is possible to face, in a clean and cheap manner, with no problems, with clinker mortar house walls up to 22 m high, while ensuring heat and sound insulation. Thus, mastering the «Isofacade» mat manufacture will ensure production of competitive products, capable to win a dominant position in the construction market.</p>
A4a. Project cost (mln USD):	1.902
A5. Background / history / overall programme / related or similar projects:	<p>The situation in the domestic and Russian markets is rather favourable and will allow keeping the «Isofacade» production output stable and high. Currently, Belarus alone has about 200 million kyb.m of housing built under obsolete heat-insulation standards, in need of thermal rehabilitation. There are no prototypes of the «Isofacade» in the Republic of Belarus and CIS countries, but a similar product named «Isoclinker» has been mastered in Germany and Canada.</p>

National Investment Site of the Republic of Belarus

<http://invest.belarus.by/en/investment/>

A6. Environmental impact summary:		
The «Minsk Construction Materials Plant» OJSC is viewing the ecological safety and environment protection to make an integral part of its activities. Therefore, it is permanently accounting for the growing requirements of energy saving and decrease of hazardous emissions. Emission control will be attained through installation of air suction and aspiration equipment.		
A7. Possible obstacles/ problems/ risk assessment:		
Possible breaks of energy carrier supplies because the natural gas and electricity imports are dependent on Russia. A shortage or supply breaks of raw materials are possible.		
A8. Term of realization / term of recoupment (years):		
1 / 3,8		
A9. Project's branch:		
Construction materials production		
B. Capital Cost Items (additional requirements for project):		
B1. Project physical components	B2. Capital cost (mln USD)	
Equipment (Germany):	1.811	
Services to study the equipment market and to search for suppliers:	0.005	
Development of the normative and technical documentation:	0.019	
Services of delivering the equipment, installation of the process line:	0.067	
Total:	1.902	
C. Capital Resources Available from Sponsors/ Proposers:		
C1. Resources 'in kind', grants, investments, equity / ownership, etc.	C2. Amount (mln USD)	
Own funds (innovation fund):	0.091	
D. Required Financial Assistance:		
D1. Financing gaps, type of financial assistance required:		
Crediting.		
D2. Sources of finance	D3. Type of investment	D4. Amount (mln USD)
Foreign investment funds:	Credit:	1.811
D5. Financial/ International Institution Name:		
The «Belpromstrojbank» OJSC		
E. Demand (users) and revenues:		
E1. Type of users/ markets, volumes, pricing, revenues, quantifiable benefits/ savings:		
Construction sector and private consumers of Belarus, Russia and Baltic states. Output volume – 15 000 sq.m per year. Price – 37 euro per 1 sq.m.		
E2. Revenues (Sales)	E3. Amount (mln USD)	
Total:	5.327	
F. Operating and Maintenance Costs:		
F1. Cost components, strategies for cost recovery, operating organisations, subsidies, etc.:		
F2. Cost Item	F3. Amount (mln USD)	
Materials and components:	1.439	
Personnel expenses:	0.039	
General expenses:	0.059	
Operation expenses:	1.537	
Expenses on investment activities:	0.639	
Expenses on financial activities:	0.111	
Total:	3.824	

G. Net Income Value:	
G1. Net Income Value	G2. Amount (mln USD)
Net profit:	1.503
H. Project information source:	
H1. This form was completed by:	
E.V. Kovshirko, Acting Head of the Planning and Dispatching Department. T.I. Sysoyeva, Head of Cost Estimates and Pricing.	
H2. Organisation (address):	
The «Minsk Construction Materials Plant» OJSC: 47, Y.Mavra Str., Minsk, 220015, Republic of Belarus.	
H3. Tel/Fax/E-mail:	
Tel.: (+375-17) 251-63-13, 252-45-04; e-mail: info@mzsm.org	
H4. Date:	
March, 2007	
H5. Supreme Organization:	
Ministry of Architecture and Civil Engineering	