

AGREED

UNDP Deputy Resident Representative

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AGREED

Department for Energy Efficiency of Gosstandard of the Republic of Belarus
National Director of the UNDP/GEF Project
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ANNUAL PROJECT REVIEW 2014

Project Title: Improving Energy Efficiency in Residential Buildings in the Republic of Belarus
Project ID: 77154
Year: 2013-2016
Annual Targets: N/A

Activity	Description	Implementing Partner	Fund	Donor	Budget account	Budget account description	Funds planned, USD	Funds utilized, USD	Delivery rate achieved, %	Deviation, USD	Annual target as per ADWP-2014	Overall project assessment of implemented activities (brief description)	
Outcome 1: Increased incentives for state organizations to invest in energy efficiency													
Output 1.1	A formally adopted and endorsed methodology for buildings' energy performance monitoring and calculation in line with contemporary European norms or other applicable international standards											Formally adopted technical code(s) containing methodological guidelines for energy performance monitoring and calculation of residential buildings.	Draft of the methodology for integrated energy performance monitoring and calculation for residential buildings were reviewed, discussed and supported by stakeholders for subsequent approval and adoption. The materials were the basis of the proposals by the State Standardization Committee for the State Development Program of Technical Regulation, Standardization and Conformity Assessment in the Field of Energy Saving for 2011-2015 (as amended №1, №2, №3). Corresponding drafts of the proposed standards have been entered the adoption process and first were discussed at and approved by the Technical Committee on Standardization TCS-14 under the Ministry of Architecture and Construction. The activities under this Output will be continued in 2015-2016.
1.1.1	Taking into account stakeholders' comments after round-table discussions of 2013, draft a relevant technical code or a revised version of GOST EN 15217 "Energy Efficiency of Buildings. Methods of Characterization of Energy Performance" with inclusion of the methodological guidelines for energy performance monitoring and calculation applicable to different types of residential buildings.	000473	62000	10003		71200 - international consultants	1600	1600	100	0	The draft technical code formally submitted to the EE Department and Ministry of Architecture and Construction, and published online. Deadline - March 15, 2014	Fully implemented. Draft proposals to the technical standards "Method of evaluation of a specific thermal energy consumption for heating and ventilation of buildings under operation", "Method of energy categorization of residential buildings under operation as to thermal energy consumption for heating" and a revised version of STB EN 15217 "Energy efficiency of buildings. Methods of expressing energy performance of buildings", containing methodological guidance for energy performance monitoring and calculation with respect to different types of houses, submitted to the EE Department and the Ministry of Architecture and Construction and published on-line (http://www.effbuild.by/publications/assortment/16/). The materials were approved by the State Standardization Committee for inclusion in the State Development Program of Technical Regulation, Standardization and Conformity Assessment in the Field of Energy Saving for 2011-2015 (as amended №1, №2, №3). The revised version of STB EN 15603 "Energy characteristics of buildings. Assessment of total energy consumption and energy characteristics of buildings" has been duly adopted (as of Aug 14, 2014).	
		000473	62000	10003		71300 - local consultants	1439.07	1439.07	100	0			
		000473	62000	10003		71300 - local consultants (translation)	995.67	995.67	100	0			
1.1.2	Provide on-going consulting services with regard to the submitted technical codes directly to the EE Department, Ministry of Architecture and Construction and other relevant authorities in the course of conciliation and adoption procedures.	000473	62000	10003		71300 - local consultants	600	600	100	0	The technical code or the revised version of GOST EN 15217 formally adopted by competent authority(ies). Deadline - Apr 30, 2014	Fully implemented. Consulting services was provided to the "StroyTechNorm" RUE and to members of the Technical Committee on Standardization TCS-14 under the Ministry of Architecture and Construction. As of Nov 26, 2014, the suggestions mentioned under item 1.1.1 above were considered and approved by the said Technical Committee for further adoption procedure. The project will continue its efforts in consulting the authorities until the said documents are duly adopted. The cooperation efforts and consulting services provided by the project are boosted by the fact that one of the project's consultants has been co-opted to chair the TCS-14.	
Output 1.2	At least 50 completed energy audits providing information on factual energy consumption and energy balance of different type of existing residential buildings of different age and using different construction techniques											Energy audits of at least 25 residential buildings organized and conducted during the 2014 preheating season and the first part of heating season.	The energy audit of five houses (of the same series as the pilot buildings that will be constructed under the project) during the heating season of 2013-2014 was completed and respective report issued and disseminated. Based on the report, the methodological recommendations developed by the project was revised and used for (i) energy audit of other 25 buildings in Minsk, Gomel and Vitebsk Oblasts; (ii) ToR and RfP to accomplish a tender for engaging an energy audit company for the said audit; (iii) training workshops. The buildings to be audited were selected, the company was engaged, and energy audit of 25 buildings started in Oct 2014. More than 70 specialists has developed their skills and increased knowledge for leading and managing effective energy audit in residential houses during three two-day training courses organised in Sep, Oct and December 2014. The activities under this Output will be continued in 2015-2016.
1.2.1	Complete the energy audits of five multi-storey buildings started in 2013 with necessary analysis of the entire heating	000473	62000	10003		71200 - international consultants	4800	4800	100	0	Energy audits of the 5 residential buildings completed and respective report submitted to stakeholders and published online.	Fully implemented. The energy audits of five multi-storey residential buildings, which began in 2013, completed. The buildings were as follows: 4-section 9-storey building, series M-464-U1 at 30 Kamennogorskaya Str., Minsk; 4-section 9-storey building, series M-464-U1 at 86	

	season data in line with the IPMVP and modern "eeMeasure"-software.	000473 62000 10003	71300 - local consultants	1200	1200	100	0	Deadline - Feb 28, 2014	Kamennogorskaya Str., Minsk; one-section 19-storey building, series M-111-90 at 35 Kuntsevskina Str., Minsk; one-section 19-storey building, series M-111-90 at 9 Kazimirovskaya Str., Minsk; 2-section building, 8 and 10 storeys, at 23b Dzerzhinsky Str., Grodno. The respective reports containing data analysis, results for the entire heating season 2013-2014 and recommendations to improve the energy efficiency of the monitored buildings prepared, distributed among stakeholders and the corresponding report was delivered to the participants of the International Conference held on May 22, 2014.
		000473 62000 10003	71300 - local consultants (translation)	200	200	100	0		
1.2.2	Based on the results of activity 1.2.1 above, revise and amend the energy audit methodological guidelines and training curricular developed in 2013.	000473 62000 10003	71200 - international consultants	4800	4800	100	0	Revised methodological guidelines for energy audits in residential buildings submitted to and approved by the EE Department and the Ministry of Architecture and Construction. Training course containing materials (curriculum, lectures, presentations) and a tutorial on energy audit of residential buildings prepared and published online. Deadline - March 31, 2014	Fully implemented. Based on the results of energy audits of the five buildings, the draft of methodological guidelines for conducting energy audits in residential buildings and training programs developed in 2013 were revised and used for (i) energy audit of other 25 buildings; (ii) ToR and RfP to accomplish a tender for engaging an energy audit company for the said audit; and (iii) handbooks for training workshops. For the said workshops all training materials (curriculum, lectures, presentations) and a tutorial on energy audit of residential buildings prepared and published online. The materials have been used during the training courses (see activity 1.2.6 below). The methodological guidelines in draft were published online (http://www.effbuild.by/publications/assortment/15/) and submitted to and preliminary approved by the EE Department and the Ministry of Architecture and Construction. Formal adoption of the guidelines is expected in 2015.
		000473 62000 10003	71300 - local consultants	800	800	100	0		
		000473 62000 10003	71300 - local consultants (translation)	200	200	100	0		
1.2.3	Based on the results of activity 1.2.2, develop and approve selection criteria and conduct a study in order to select at least 25 residential buildings subjected to energy audits.	000473 62000 10003	71200 - international consultants	4800	4800	100	0	The selection criteria and a list of buildings proposed for energy auditing (at least 25 buildings) developed, reported to and approved by the EE Department and the Ministry of Architecture and Construction, and published online. Deadline - May 31, 2014	Fully implemented. Based on the results of energy audits of five residential buildings the criteria for selection of 25 residential buildings to perform energy audits in accordance with the developed methodology were defined. The list of selected buildings with their advanced features was presented for approval and agreed with respective local executive committees. The list contains 11 buildings in Minsk, 7 buildings in Gomel and 7 buildings in Vitebsk. The buildings were of different number of storey, envelope materials, age and energy performance characteristics (see http://www.effbuild.by/publications/showproduct/15/135/).
		000473 62000 10003	71300 - local consultants	2000	2160	108	-160		
1.2.4	Based on the results of activities 1.2.2 and 1.2.3 above, prepare and approve action plans for energy auditing the selected residential buildings of different age and construction techniques.	000473 62000 10003	71200 - international consultants	2400	2400	100	0	The action plans prepared for energy auditing of the selected buildings approved by the EE Department and the Ministry of Architecture and Construction. Deadline - June 30, 2014	Fully implemented. Action plan for energy audits of selected residential buildings was prepared and necessary ToR, RfP, specifications and indications for an energy audit company were duly approved by EE Department. The tender was conducted and an experienced company was selected to provide energy audit services.
		000473 62000 10003	71300 - local consultants	600	760	127	-160		
		000473 62000 10003	71300 - local consultants (translation)	192	170.88	89	21.12		
1.2.5	Conduct energy audits of at least 25 residential buildings in line of the plans approved under activity 1.2.4 during the preheating season and the first part of heating season.	000473 62000 10003	71200 - international consultants	10474.5	10474.5	100	0	Energy audits of at least 25 residential buildings during the 2014 pre-heating season and the first part of heating season conducted and respective reports submitted to stakeholders. Deadline - Dec 31, 2014	Fully implemented. The company, selected through a tender to conduct energy audits, has started a survey of 25 selected buildings. The first report on the results of energy performance monitoring during the pre-heating and first part of 2014-2015 heating season drafted. The implementation of this activity will be continued until May 2015.
		000473 62000 10003	71300 - local consultants	5200	5960	115	-760		
		000473 62000 10003	72100 - contract. serv. companies	50000	38295.61	77	11704.39		
		000473 62000 10003	71600 - travel	6000		0	6000		
1.2.6	Organize and conduct at least three 2-day training workshops for national experts and local energy auditing firms to improve their capacity in energy audit of residential buildings.	000473 62000 10003	71200 - international consultants	6520	6701	103	-181	At least 50 energy auditors attended the three two-day training workshops. Training materials prepared and published offline. Deadline - Dec 31, 2014	Fully implemented. Three two-day training sessions on energy audit containing introductory, theoretical and practical (with on-site measurement practice) courses for more than 70 trainees from 18 local energy audit firms and other professionals (e.g., engineers, designers, construction inspectors, etc.) were held in Sep, Oct and Dec 2014 in Minsk. 91% of participants rated the courses as very actual and important for Belarus and their professional careers. About 70% feels that the training fully met their expectations and they will be using its outcomes in their work. All training materials were distributed among the trainees and published on-line (http://www.effbuild.by/publications/assortment/25/). The trainees were given certificates issued by the EE Department.
		000473 62000 10003	71300 - local consultants	2100	3754	179	-1654		
		000473 62000 10003	71600 - travel	3960	1040.32	26	2919.68		
		000473 62000 10003	72100 - contract. serv. companies	14479.5	10326.46	71	4153.04		
		000473 62000 10003	74200 - audio & video prod.	300		0	300		
		000473 62000 10003	71300 - local consultants (translation)	1260	1135.6	90	124.4		
Output 1.3	A completed review and cost-efficiency analysis of different technical options to improve buildings' energy efficiency and the use of renewable energy sources, including an analysis of the cost-efficiency of different heat supply and distribution methods to serve low or close to zero energy buildings							No activity was stipulated for 2014	Pre-operation review and analysis accomplished in 2013. To be continued in 2015-2016, after design and construction of at least one of the pilot buildings.
Output 1.4	A completed analysis of the impact of the new low energy buildings on the feasibility of different heat supply systems typically used in Belarus and the buildings' central water heating + radiator scheme connected to district heating, in particular, with related recommendations for future development							Recommendations for future development of district heat and power supply systems approved by stakeholders and accounted in related state/municipal development programmes.	Preliminary reports containing the assessment of the most appropriate solutions for further improvement of district heating and hot water supply systems sent to stakeholders for comments and suggestions and distributed via CD-ROM and the Internet. The recommendations do not produce any compromise between CHP-based district heating and decentralized heating of houses with nearly zero energy consumption. The activities under this Output will be continued in 2015-2016.

1.4.1	Based on the results of review and analysis of different technical options for heating and hot water supply elaborated by the project in 2013, complete a cost-efficiency analysis of typical district heat supply systems and heating schemes with resulting impact of low energy housing.	000473 62000 10003			2400	4500	188	-2100	A report on the cost-efficiency analysis of district heat and power supply systems with a view to evaluate a potential impact of low energy housing prepared, submitted to stakeholders and published online. Deadline - March 31, 2014	Partly implemented. Report, comprising the recommendations based on preliminary assessments of cost-effective solutions in reducing energy consumption by typical heating and hot water supply systems in various types of houses, taking into account the technical solutions used for buildings with low energy consumption, was published and submitted to stakeholders for comments and distributed via CD-ROM and the Internet (http://www.effbuild.by/publications/assortment/14/). The recommendations met the stakeholders expectations, although made it clear that under existing tariffs the new technical solutions would not be able either to compete with CHPs or to provide a cost-effective compromise with centralized district heating schemes. The implementation of this activity will be continued in 2015 in order to properly analyze and evaluate evolution of the tariff policy and its impact on cost-efficiency of the energy efficient measures suggested by the project for heating and hot water supply options.
1.4.2	Organize a round table (ad-hoc meeting) with an attendance of relevant stakeholders (BelEnergo, Communal and Municipal Services, District CHPs) to discuss, in view of the results of activity 1.4.1 above, the feasibility of district heat and power supply systems under the conditions of low energy housing, and formulate related recommendations for future development of the said systems.	000473 62000 10003 000473 62000 10003	71300 - local consultants 72100 - contract. serv. companies		400	1125	281	-725	At least 25 representatives of stakeholders attended the round table, and a corresponding minute with recommendations as to feasibility of district heating and power supply systems prepared and submitted to stakeholders for approval and accounting in relevant development programmes. Deadline - May 30, 2014	Fully implemented. Scientific and practical workshop and a round-table "Experience of designing houses with minimum energy consumption" organized and held on July 18, 2014 in the "Institute GrodnoGrazhdanProjekt" RUE with the participation of about 75 professionals representing 29 companies (designers, engineers, builders, construction inspectors, utilities representatives, etc.), 12 public authorities and 5 media groups. While making recommendations as to a number of cost-effective design solutions, the workshop highlighted many unresolved issues including still exercised cross-subsidies and improper tariff policy that need deeper investigations after the pilot buildings are fully designed along with cost estimate of engineering facilities, installations and equipment for energy efficiency improvement.
Output 1.5	A finalized draft with related stakeholder consultations for revised national energy performance based norms and standards for newly constructed buildings and, as applicable, those going through a major renovation with the initial focus on residential buildings								A set of necessary standards for design, construction and operation of energy efficient buildings identified, drafted, revised after ad-hoc discussions and submitted to competent authorities for adoption.	On the basis of a road map prepared and discussed with stakeholders in 2013, a draft of provisions for the Technical Code of the Republic of Belarus "Energy Efficiency Performance of Buildings" along with its preliminary text based on the energy efficiency performance approach and Directive 2010/31/EU have been elaborated by the project. Justifications for the development of technical regulations interconnected with the said Technical Code were elaborated that allowed to include them in Amendment No.1 to the State Standardization Plan of the Republic of Belarus for 2014 approved by the Chairman of GosStandart as of 01.07.2014 (see also a draft of the State Standardization Plan of the Republic of Belarus for 2015) and in the Development Program for System of Technical Norms, Standardization and Confirmation of Compliance in the Field of Energy Saving for 2011-2015 (with changes No.1, No.2, No.3). The draft of the Technical Code also directed to other stakeholders for discussions and comments. The draft was discussed during a round table and submitted to the Technical Committee on Standardization TCS-14 under the Ministry of Architecture and Construction. The activities under this Output will be continued in 2015-2016.
1.5.1	Provide on-going consulting services to relevant authorities in the course of conciliation and adoption procedures with regard to the technical codes drafted by the project in 2013.	000473 62000 10003	71300 - local consultants		600	933	156	-333	The technical codes drafted by the project in 2013 formally adopted by competent authority(ies). Deadline - July 31, 2014	Fully implemented. The project provided consulting services to the competent authorities, including RUE "StroyTechNorm", on a constant basis with regard of technical regulations developed by the project in 2013-2014. Based on this efforts, together with RUE "StroyTechNorm", the Program of Actions in the Field of Energy Efficiency and Energy Saving in Construction Sector for 2014-2017 has been developed. The Plan allows to coordinate activities in development and adoption of regulations being prepared and suggested by the project. Coordination was also promoted by the fact that according to order No.211 of 29.07.2014 by the Minister of Architecture and Construction one of project's experts was co-opted into Technical Committee on Standardization in the field of architecture and construction as the chairman of committee "Energy saving, power efficiency, energy management" (TCS-14).
1.5.2	On the basis of the roadmap suggested by the project in 2013, recommend a list of standards and a concept (general provisions) of the Technical Regulations along with supporting information to be included into the 2014 Annual Standardization Plan and/or the Complex Programme of Measures for Development of Energy Efficient Construction, Reconstruction and Modernization of Residential Buildings of the Ministry of Architecture and Construction.	000473 62000 10003 000473 62000 10003 000473 62000 10003	71200 - international consultants 71300 - local consultants 71300 - local consultants (translation)		5007.79	5007.79	100	0	List of standards for energy efficient residential buildings submitted to and endorsed by the Ministry of Architecture and Construction with its inclusion into the 2014 Annual Standardization Plan and/or the Complex Programme of Measures for Development of Energy Efficient Construction, Reconstruction and Modernization of Residential Buildings. Deadline - March 31, 2014	Fully implemented. Draft of provisions for the Technical Code of the Republic of Belarus "Energy Efficiency Performance of Buildings" has been elaborated by the project. The draft was discussed with stakeholders and, as a result, a corresponding report with justifications for the development of the Technical Code was submitted to the State Standardization Committee of the Republic of Belarus (GosStandart). Based on the report the GosStandart has included the Technical Code in Amendment No. 1 to the State Standardization Plan of the Republic of Belarus for 2014 approved by the Chairman of GosStandart as of 01.07.2014 (see also a draft of the State Standardization Plan of the Republic of Belarus for 2015, http://gosstandart.gov.by/txt/Programm-work/docs/PGS_2015_plan.pdf).
1.5.3	On the basis of the roadmap suggested by the project in 2013 and in line with the proposals submitted and endorsed under activity 1.5.2 above, draft a set of standards (the Technical Regulations) harmonized with	000473 62000 10003 000473 62000 10003	71200 - international consultants 71300 - local consultants		8200	8200	100	0	Draft of the standards for energy efficient residential buildings submitted to the EE Department and the Ministry of Architecture and Construction and published online. Deadline - Sep 30, 2014	Fully implemented. Draft text for the Technical Code of the Republic of Belarus "Energy Efficiency Performance of Buildings" based on the energy efficiency performance approach and Directive 2010/31/EU have been elaborated by the project. Drafts of some other interconnected standards and amendments to the operating ones suggested by the project have been included by the GosStandart in the Development Program for System of Technical Norms, Standardization and

	EU standards to cover missing energy performance requirements, indicators and regulations to be applied in building sector with a view to facilitating developments of energy efficient buildings.	000473 62000 10003	71300 - local consultants (translation)	420 428.74 102 -8.74		Confirmation of Compliance in the Energy Saving Field for 2011-2015 (with changes No.1, No.2, No.3).
1.5.4	Organize a round table (ad-hoc meeting) to discuss the standards drafted under activity 1.5.3 above.	000473 62000 10003 000473 62000 10003	71300 - local consultants 72100 - contract. serv. companies	400 733 183 -333 600 0 600	At least 25 representatives of stakeholders attended the round table, and a corresponding minute with recommendations as to acceptability and applicability of the drafted standards prepared and handed over to stakeholders. Deadline - Oct 31, 2014	Fully implemented. Rationale, principal provisions and draft text for the Technical Code of the Republic of Belarus "Energy Efficiency Performance of Buildings" along with some technical regulations interconnected with the said code elaborated by the project were presented and discussed during a round-table workshop "Regulatory framework and standards for construction and operation of residential buildings. Draft of Technical Code on energy efficiency of buildings" organized and held by the project in Minsk on Dec 18, 2014. About 50 professionals and decision-makers supported most of the approaches introduced and grounded by the project and recommended the presented documents for further conciliation and adoption procedures.
1.5.5	Based on the results of activity 1.5.4 above, revise and submit the draft standards to the competent authority(ies).	000473 62000 10003 000473 62000 10003	71200 - international consultants 71300 - local consultants	4000 4000 100 0 600 0 600	The revised draft standards formally submitted to the competent authority(ies) for adoption. Deadline - Nov 30, 2014	Partly implemented. The revised text of the Technical Code of the Republic of Belarus "Energy Efficiency Performance of Buildings" along with some technical regulations interconnected with the said code are prepared and will be submitted to the competent authority in 2015 in line with the timeframes prescribed by Amendment No.1 to the State Standardization Plan of the Republic of Belarus for 2014 and by the Development Program for System of Technical Norms, Standardization and Confirmation of Compliance in the Energy Saving Field for 2011-2015 (with changes No.1, No.2, No.3).
Output 1.6	Elaborated and by the Government of Belarus adopted practical procedures for the establishment of a mandatory system of EE certification of buildings, including issuing of EE passports and a system of monitoring and compliance checking with related on-site spot-checks.				The practical procedures for the establishment of an energy efficiency certification system and a system of monitoring and compliance checking applicable to residential buildings formally submitted for adoption.	The project provided analysis of the building energy certification best practices existing in the EU countries and drafted recommendations and proposals containing principal provisions and procedures for a system of mandatory certification of energy efficiency and systems for monitoring and verifying compliance with established standards for residential buildings. The proposals were discussed at two round-table seminars. With due regard of the recommendations from the said round-tables, the elaboration of practical procedures for energy certification has been formally included in the Development Program for System of Technical Norms, Standardization and Confirmation of Compliance in the Energy Saving Field for 2011-2015 (with changes No.1, No.2, No.3). The activities under this Output will be continued in 2015-2016.
1.6.1	Conduct a critical analysis of the best European and other internationally recognized approaches, methodologies, regulations and practices for the energy efficiency certification system applicable to residential buildings.	000473 62000 10003 000473 62000 10003 000473 62000 10003	71200 - international consultants 71300 - local consultants 71300 - local consultants (translation)	6000 6000 100 0 600 600 100 0 420 50 12 370	A report on the results of critical analysis of best practices of energy certification of residential buildings with relevant recommendations submitted to and approved by the EE Department and published online. Deadline - Apr 30, 2014	Fully implemented. The project provided a comprehensive analysis of approaches, methodologies and regulations for the energy certification system based on the best European practice and experience in introduction of such system applicable to residential buildings. As a result, recommendations containing a rationale for the development and introduction of energy certification system in Belarus were drafted, transferred to stakeholders and disseminated on CDs and in the Internet (http://www.effbuild.by/publications/assortment/16/).
1.6.2	Based on the results of activity 1.6.1 above and with due account of the Belarusian norms for energy efficiency pasportization, formulate basic requirements and specifications for the said energy efficiency certification system including its institutional and legal arrangement.	000473 62000 10003 000473 62000 10003 000473 62000 10003	71200 - international consultants 71300 - local consultants 71300 - local consultants (translation)	11000 11000 100 0 1000 1153 115 -153 420 570.16 136 -150.16	A report containing basic requirements, specifications, institutional and legal arrangements for the energy efficiency certification system submitted to and approved by the EE Department and published online. Deadline - July 31, 2014	Fully implemented. The project elaborated basic requirements and specifications along with recommendations on institutional arrangements and legal framework for the energy certification system applicable to residential buildings. The related reports were handed over to stakeholders and disseminated on CDs and in the Internet (http://www.effbuild.by/publications/assortment/22/).
1.6.3	Organize a round table (ad-hoc meeting) to discuss the provisions drafted under activity 1.6.2 above.	000473 62000 10003 000473 62000 10003	71300 - local consultants 72100 - contract. serv. companies	400 400 100 0 600 1727.76 288 -1127.76	At least 25 representatives of stakeholders attended the round table and a corresponding minute with recommendations as to technical, institutional and legal arrangement of the certification system prepared and handed over to stakeholders. Deadline - August 15, 2014	Fully implemented. Rationale and principal provisions elaborated by the project for the establishing the energy certification system in Belarus were presented and discussed during an international round-table workshop "General Terms and Conditions for Energy Efficiency Certification System in Buildings" organized and held by the project in Minsk on Oct 3, 2014. More than 40 professionals representing 25 design and engineering companies, 8 decision-makers and 3 journalists supported most of the approaches introduced and grounded by the project and recommended to proceed further to elaboration of institutional arrangements and legal framework of the said system.
1.6.4	Conduct a critical analysis of the best European and other internationally recognized methodologies and relevant tools for energy efficiency monitoring and compliance checking applicable to residential buildings.	000473 62000 10003 000473 62000 10003 000473 62000 10003	71200 - international consultants 71300 - local consultants 71300 - local consultants (translation)	9200 9200 100 0 800 800 100 0 420 0 420	A report on the results of critical analysis of methodologies and tools for validation of compliance with energy efficiency norms and requirements for residential buildings with relevant recommendations submitted to and approved by the EE Department and published online. Deadline - July 31, 2014	Fully implemented. The project provided a comprehensive analysis of international experience with energy efficiency monitoring and compliance checking in relation to national building energy efficiency laws and requirements. The report has been issued and disseminated on CDs and in the Internet (http://www.effbuild.by/publications/?action=assortment&parent=23&start=2).
1.6.5	Elaborate, on the basis of the results of activities 1.6.3 and 1.6.4 above, a draft of practical procedures for the establishment of	000473 62000 10003	71200 - international consultants	12500 12500 100 0	A report containing the draft of practical procedures for a mandatory system of energy efficiency certification of residential	Fully implemented. Based on the analysis above the project provided detailed recommendations for conditions in Belarus towards developing procedures and tools to support building energy performance monitoring and conformance checking. The related report was handed over to

	a mandatory system of energy efficiency certification of residential buildings along with a system of monitoring and compliance checking.	000473 62000 10003	71300 - local consultants	2000	2000	100	0	buildings along with a system of monitoring and compliance checking submitted to and approved by the EE Department and published online. Deadline - August 31, 2014	stakeholders and disseminated on CDs and in the Internet (http://www.effbuild.by/publications/showproduct/22/147/). It was also presented and discussed during the second round-table workshop held on this issue (see sub-activity 1.6.7 below).
		000473 62000 10003	71300 - local consultants (translation)	420		0	420		
1.6.6	Conduct on-site spot-checks of energy performance of at least five multi-storey buildings with a view to demonstrate and verify the suggested methodology and issue of demo energy certificates of the proposed template.	000473 62000 10003	71300 - local consultants	1046	1046	100	0	A report containing the results of demonstration on-site spot-checks of energy performance of at least five multi-storey buildings with a view to verify the suggested methodology, along with the annexed demo energy certificates of the proposed template prepared and published on-line. Deadline - Sep 15, 2014	Fully implemented. The energy performance of five residential buildings audited in 2013-2014 was calculated and demo energy certificates were issued on the basis of the draft of building energy performance monitoring and conformity checking methodologies and tools suggested by the project. The certificates were demonstrated and discussed during a round-table workshop (see sub-activity 1.6.7 below).
		000473 62000 10003	72100 - contract. serv. companies	5000		0	5000		
1.6.7	Organize a round table (ad-hoc meeting) to discuss the procedures and tools for energy efficiency certification and validation systems elaborated as a result of activities 1.6.5 and 1.6.6 above.	000473 62000 10003	71300 - local consultants	400	1124.86	281	-724.86	At least 25 representatives of stakeholders attended the round table and a corresponding minute with recommendations as to the elaborated procedures and tools for energy efficiency certification and validation systems prepared and handed over to stakeholders. Deadline - Sep 30, 2014	Fully implemented. Provisions and requirements for procedures, institutional and legal tools for monitoring and conformity checking elaborated by the project for the energy certification system in Belarus were presented and discussed during an international round-table workshop "Main provisions, procedures and methodology for certification system and conformity assessment of energy efficiency performance of buildings" organized and held by the project in Minsk on Dec 18, 2014. About 50 professionals from 33 design, engineering and construction companies and universities, 17 decision-makers from public authorities and recommended to incorporate the provisions elaborated by the project into a draft of standard harmonized with EN 15217 "Energy efficiency of buildings. Methods for determination of energy efficiency and energy certification procedures of buildings".
		000473 62000 10003	72100 - contract. serv. companies	600		0	600		
1.6.8	Based on the results of activity 1.6.7, revise the elaborated draft of practical procedures and tools for energy efficiency certification and validation systems and submit it for approval and adoption.	000473 62000 10003	71200 - international consultants	8200	8200	100	0	The revised draft of practical procedures and tools for energy efficiency certification and validation systems formally submitted to competent authorities for approval and adoption. Deadline - Dec 31, 2014	Partly implemented. Based on the results of above activities, the project prepared a report with necessary rationale, draft provisions for certification methodologies and requirements for institutional arrangements and legal framework of the energy certification system for residential buildings. The materials prepared by the project have been taken into account by the RUE "StroyTechNorm", a developer of a draft of Standard EN 15217 "Energy efficiency of buildings. Methods for determination of energy efficiency and energy certification procedures of buildings". The standard has been included in the list of the Development Program for System of Technical Norms, Standardization and Confirmation of Compliance in the Energy Saving Field for 2011-2015 (with changes No.1, No.2, No.3), and will be further elaborated in cooperation with the RUE "StroyTechNorm" in 2015.
		000473 62000 10003	71300 - local consultants	800	800	100	0		
		000473 62000 10003	71300 - local consultants (translation)	420		0	420		
	Bank Fee	000473 62000 10003		250	187.97	75	62.03		
	REALIZED GAIN/REALIZED LOSS	000473 62000 10003		0	-26.59		26.59		
Output 1.7	Further developed and adopted quality standards and a system of EE certification for the construction materials, accessories and appliances used in the construction sector.							No activity was stipulated for 2014	The Output is to be implemented in 2015-2016
Outcome 1 - total:				221,065	200,126	91%	20,939		
Outcome 2: Enhanced capacity of the Belarusian specialists to implement and effectively enforce the new energy efficiency building standards and construction norms									
Output 2.1	Developed, published and disseminated stakeholder group specific technical guides, handbooks, guidelines and other related training materials on energy efficiency design and construction of new buildings to support the implementation of the envisaged new construction norms, including dissemination of this information through the internet based energy platform and the project's own Internet site							At least six handbooks on design and construction of new energy efficient buildings prepared, approved by stakeholders, disseminated through Internet and published (300 copies each).	According to the capacity building action plan compiled in 2013, the project has prepared 56 technical reports, published 11 handbooks, brochures and reference materials, as well as 15 publications in the open media which were also disseminated on CDs and published on the project website. The activities under this Output will be continued in 2015-2016.
2.1.1	Based on the capacity building action plan elaborated by the project in 2013 and endorsed by stakeholders, prepare, publish and disseminate offline and online a set of specific technical information materials for different target groups, as follows:								
2.1.1.1	Handbook "Design of Energy Efficient Building Envelope"	000473 62000 10003	71300 - local consultants	1200	1370	114	-170	The handbook prepared, approved by the EE Department and the Ministry of Architecture and Construction and published offline (300 copies) and online. Deadline - May 31, 2014	Fully implemented. 300 copies published: Проектирование энергоэффективных ограждающих конструкций жилых зданий. Ячеистый бетон при проектировании энергоэффективных оболочек жилых многоквартирных зданий (справочное пособие) / Соколовский Л.В. // Минск, «Артлайн», 2014. 44 стр. (see http://www.effbuild.by/publications/showproduct/12/214/)
		000473 62000 10003	74200 - audio & video prod.	700	800	114	-100		
2.1.1.2	Handbook "Design of HVAC Systems for Energy Efficient Multi-storey Residential Buildings"	000473 62000 10003	71300 - local consultants	1200	1596	133	-396	The handbook prepared, approved by the EE Department and the Ministry of Architecture and Construction and published offline (300 copies) and online. Deadline - June 30, 2014	Fully implemented. 300 copies published: Системы принудительной вентиляции с рекуперацией тепловой энергии удаляемого воздуха для жилых зданий. Теория и практика / Данилевский Л.Н. // Минск, октябрь 2014. 128 стр.
		000473 62000 10003	74200 - audio & video prod.	700	51.59	7	648.41		
2.1.1.3	Handbook "Design of Heating and Hot Water Supply Systems Based on Heat Pumps for	000473 62000 10003	71300 - local consultants	1377.69	1377.69	100	0	The handbook prepared, approved by the EE Department and the Ministry of	Fully implemented. 300 copies published: Применение тепловых насосов в системах теплоснабжения и горячего водоснабжения многоквартирного жилого фонда на принципах

	Energy Efficient Multi-storey Residential Buildings"	000473 62000 10003	74200 - audio & video prod.	559.45 559.45 100 0	Architecture and Construction and published offline (300 copies) and online. Deadline - July 31, 2014	энергосбережения / Жидович И.С. // Минск, «Артлайн», 2014. 32 стр. (see http://www.effbuild.by/publications/showproduct/12/101/)
2.1.1.4	Handbook "Design of Hot Water Supply System Based on Solar Collectors for Energy Efficient Multi-storey Residential Buildings"	000473 62000 10003 000473 62000 10003	71300 - local consultants 74200 - audio & video prod.	1386.5 1386.5 100 0 605 605 100 0	The handbook prepared, approved by the EE Department and the Ministry of Architecture and Construction and published offline (300 copies) and online. Deadline - Aug 31, 2014	Fully implemented. 300 copies published: Использование солнечной энергии для повышения энергоэффективности жилых зданий (справочное пособие) / Покотилов В.В. // Минск, декабрь 2014. 51 стр. (see http://www.effbuild.by/publications/showproduct/17774/)
2.1.1.5	Handbook "Design of Power Supply System Based on Solar PV-panels for Energy Efficient Multi-storey Residential Buildings"	000473 62000 10003 000473 62000 10003	71300 - local consultants 74200 - audio & video prod.	1200 1386.5 116 -186.5 700 0 700	The handbook prepared, approved by the EE Department and the Ministry of Architecture and Construction and published offline (300 copies) and online. Deadline - Sep 30, 2014	Fully implemented. 300 copies published: Применение солнечных фотоэлектрических панелей для нагрева воды на нужды горячего водоснабжения / Бедулько А.В. // Минск, «Поликraft», 2014. 26 стр.
2.1.2	Based on the experience gained during the design of energy efficient multi-storey residential buildings in Belarus, prepare, publish and disseminate offline and online a handbook "Design Implementation of Energy Efficiency Performance in Residential Buildings in Belarus".	000473 62000 10003 000473 04000 00012	71300 - local consultants 74200 - audio & video prod.	1200 1799 150 -599 700 3980 0 -3280	The handbook prepared, approved by the EE Department and the Ministry of Architecture and Construction and published offline (300 copies) and online. Deadline - Dec 31, 2014	Fully implemented. 300 copies published: Проектирование, практика и принципы строительства энергоэффективных зданий / Дзинтарс Яаунземс // Минск, «Поликraft», 2014. 86 стр. (see http://www.effbuild.by/publications/showproduct/12/213/)
Output 2.2	New courses on integrated building design and building energy efficiency included into the curricula of all key Belarusian universities educating architects and building engineers and at least 200 students have passed these new courses by the end of the project				Two tutorials, in draft, on energy efficient construction materials and energy efficient building design principles presented and endorsed by at least one of the selected relevant universities.	Three new courses related to the best international and national practice in the field of design and construction of energy efficient residential buildings were suggested and presented by the project. Three national universities agreed to include these new courses in their syllabi during a round-table discussions held in the Belarusian National Technical University conjointly with Scientific Council Meeting with presence of representatives from 14 faculties of 7 universities. The decision has been made to continue cooperation with the said faculties in order to further adjust the curricular materials prepared by the project to current syllabi. The activities under this Output will be continued in 2015-2016.
2.2.1	Based on recommendations and ToRs for updating and adjusting curricular of selected relevant universities elaborated by the project in 2013 and endorsed by stakeholders, draft university syllabi and other curricular materials for at least two subjects: (i) Materials, Wares and Technologies for Energy Efficient Buildings and (ii) Design of Energy Efficient Buildings.	000473 62000 10003	71300 - local consultants	8200 8200 100 0	At least two university syllabi and other curricular materials drafted, based on the recommendations and ToRs for updating and adjusting curricular of selected relevant universities elaborated by the project in 2013, and submitted to the EE Department and published online. Deadline - Oct 31, 2014	Fully implemented. Three new courses, i.e., "Design of energy efficient residential buildings", "Energy efficient technologies in architectural engineering" and "Energy efficient construction materials, products and production engineering", were suggested by the project to three leading universities (Belarusian National Technical University, Belarusian State Technological University and Brest State Technical University) and prepared in draft along with related curricular materials, presented to stakeholders and published online (see http://www.effbuild.by/publications/assortment/18/).
2.2.2	Organize and hold presentations of the prepared university syllabi and other curricular materials for Scientific Council in at least one of the selected universities.	000473 62000 10003 000473 04000 00012 000473 62000 10003	71300 - local consultants 71300 - local consultants 72100 - contract. serv. companies	600 600 100 0 0 1200 0 -1200 600 328.02 55 271.98	Elaborated university syllabi and other curricular materials presented to and endorsed by Scientific Council of at least one of the relevant universities for incorporation of these materials into educational process. Deadline - Dec 31, 2014	Fully implemented. Round-table workshop was held on Dec 12, 2014 in the Belarusian National Technical University conjointly with University's Scientific Council Meeting to present and discuss a draft of three new university courses suggested by the project. About 35 representatives of 14 faculties from 7 universities (Belarusian National Technical University, Belarusian State Technological University, Brest State Technical University, Polotsk State University, Gomel State Technical University, Belarusian State University of Transport, Grodno State University) attended the workshop. The decision has been made to continue cooperation with the said faculties in order to further adjust the curricular materials prepared by the project to the current syllabi of three leading universities, i.e., Belarusian National Technical University, Belarusian State Technological University and Brest State Technical University.
Output 2.3	At least 50 experts from different state and municipal entities dealing with construction policies, norms and standards are trained on the most recent international developments, experiences and lessons learnt on building energy efficiency and environmentally sustainable construction.				At least 50 experts trained on the most recent international developments, experiences and lessons learnt in the field of construction policies, norms and standards for energy efficient buildings and environmentally sustainable construction.	Fully implemented. Training materials and related presentations were prepared and a two-day training workshop focused on construction policies, norms and standards was held for about 60 specialists. The workshop was divided into two courses, Introductory and Practical. As a result, all trainees were given certificates issued by the EE Department.
2.3.1	Prepare training materials (handbooks, tutorials, presentations) concerning the most recent international developments, experiences and lessons learnt in the field of construction policies, norms and standards for energy efficient buildings and environmentally sustainable construction.	000473 62000 10003 000473 62000 10003 000473 62000 10003	71200 - international consultants 71300 - local consultants 71300 - local consultants (translation)	4800 4800 100 0 3200 8365.76 261 -5165.76 420 420 100 0	Training materials for specialists, who deal with construction policies, norms and standards, concerning the most recent international developments, experiences and lessons learnt in the field of construction policies, norms and standards for energy efficient buildings and environmentally sustainable construction prepared and submitted to the EE Department and the Ministry of Architecture and Construction and	Fully implemented. Handbook "Policy, norms and standards for energy efficient buildings" of 38 pages and 16 related presentations were prepared for a two-day training workshop for policy-makers and professionals in the field of construction policies, norms and standards for energy efficient buildings and environmentally sustainable construction. The materials were also submitted to the EE Department and the Ministry of Architecture and Construction and published online.

2.3.2	Organize and conduct, using materials prepared under activity 2.3.1 above, at least one 2-day training workshop for specialists from relevant state and municipal agencies dealing with construction policies, norms and standards.	000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 04000 00012	71200 - international consultants 71300 - local consultants 71600 - travel 72100 - contract. serv. companies 74200 - audio & video prod. 71300 - local consultants (translation)	4000 4000 901 901 1320 4800 3306.89 100 420 379.51	100 0 100 0 0 69 1493.11 0 100 90 40.49	At least 50 specialists from relevant state and municipal agencies dealing with construction policies, norms and standards were trained via a two-day training workshop in the most recent international developments, experiences and lessons learnt in the field of construction policies, norms and standards for energy efficient buildings and environmentally sustainable construction. Training materials published offline and disseminated among participants. Deadline - May 31, 2014	Fully implemented. Two-day training workshop comprised of two sessions (Introductory and Practical) was held on Oct 23-24, 2014 in Minsk. About 50 representatives from 34 organizations (5 public authorities and 16 design and construction companies, including "StroyTechNorm" RUE) attended the workshop. 75% of participants rated the courses as very actual and important ones for Belarus and their professional careers. About 80% feel that the training fully met their expectations and they will be using its outcomes in their work. All training materials were distributed among the trainees and published on-line (http://www.effbuild.by/publications/assortment/24/). The trainees were given certificates issued by the EE Department.
Output 2.4	At least 50 architects and other buildings designers from the leading design institutes and professional associations are trained on the: i) most recent international developments in the area of energy efficient buildings from the technical and policy perspective; ii) integrated, energy efficient building design principles and techniques; iii) implications in the practical design work when moving from prescriptive norms to buildings' overall energy performance based construction norms; iv) available technical options and cost-effective design principles for optimizing buildings' energy performance; and v) presentation of the available, state of the art software to support integrated, energy efficient building design and training for its use.	At least 50 architects and other buildings designers trained on the most recent international developments in the area of energy efficient buildings, including policy, construction norms and standards, design principles and techniques, and available cost-effective technical options to achieve optimal energy performance of buildings.	Fully implemented. Training materials and related presentations were prepared and a two-day training workshop focused on the most recent international developments in the area of energy efficient buildings, including policy, construction norms and standards, design principles and techniques, and available cost-effective technical options to achieve optimal energy performance of buildings was held for about 60 specialists. The workshop was divided into two courses, Introductory and Practical. As a result, all trainees were given certificates issued by the EE Department.				
2.4.1	Prepare training materials (handbooks, tutorials, presentations) concerning the i) most recent international developments in the area of energy efficient buildings from the technical and policy perspective; ii) integrated, energy efficient building design principles and techniques; iii) implications in the practical design work when moving from prescriptive norms to buildings' overall energy performance based construction norms; and iv) available technical options and cost-effective design principles for optimizing buildings' energy performance.	000473 62000 10003 000473 62000 10003 000473 04000 00012	71200 - international consultants 71300 - local consultants 71300 - local consultants (translation)	5600 5600 3200 3414.32 420 420	100 0 107 -214.32 100 0	Training materials for architects and buildings designers from the leading design institutes and professional associations concerning the most recent developments, design principles and techniques, implications of new construction norms in the practical design work, and available cost-effective technical options for optimizing buildings' energy performance prepared and submitted to the EE Department and the Ministry of Architecture and Construction and published online. Deadline - May 31, 2014	Fully implemented. Handbook "Design, practice and principles of energy efficient buildings" of 63 pages, training aids "Available technical options and cost-effective design principles for construction of energy efficient buildings" of 48 pages, training aids "Heat demand calculation tool for heating at various schemes of heat recovery" of 24 pages and 15 related presentations were prepared for a two-day training workshop for developers, designers and other professionals in the field of design, construction and operation of energy efficient buildings. The materials were also submitted to the EE Department and the Ministry of Architecture and Construction and published online (e.g., http://www.effbuild.by/publications/showproduct/12/213/).
2.4.2	Organize and conduct, using materials prepared under activity 2.4.1 above, at least one 2-day training workshop for architects and other buildings designers from the leading design institutes and professional associations.	000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 04000 00012	71200 - international consultants 71300 - local consultants 71600 - travel 72100 - contract. serv. companies 74200 - audio & video prod. 71300 - local consultants (translation)	4250 4250 1000 1000 1320 4800 3608.03 100 420 420	100 0 100 0 75 1191.97 0 100 100 0	At least 50 architects and other buildings designers from the leading design institutes and professional associations were trained via a two-day training workshop in the most recent developments, design principles and techniques, implications of new construction norms in the practical design work, and available cost-effective technical options for optimizing buildings' energy performance. Training materials published offline and disseminated among participants. Deadline - July 31, 2014	Fully implemented. Two-day training workshop comprised of two sessions (Introductory and Practical) was held on Sep 18-19, 2014 in Minsk. About 60 representatives from 23 organizations including 18 design and engineering companies, 3 universities and 2 public authorities attended the workshop. 78% of them rated the courses as very actual and important ones for Belarus and their professional careers. About 67% feel that the training fully met their expectations and they will be using its outcomes in their work. All training materials were distributed among the trainees and published on-line (http://www.effbuild.by/news/293.html). The trainees were given certificates issued by the EE Department.
Output 2.5	At least 50 construction inspectors from the main regional and district centers trained on methodologies for assessing buildings' energy performance and the correct installation of the materials and equipment used.	At least 50 construction inspectors trained on the best practice, methodologies and tools for assessing quality of design and construction.	Fully implemented. Training materials and related presentations were prepared and a training workshop focused on methodologies for energy performance assessment and correct installation of the materials for buildings was held for about 50 specialists. As a result, all trainees were given certificates issued by the EE Department.				
2.5.1	Prepare training materials (handbooks, tutorials, presentations) concerning the best practice, methodologies and tools for assessing quality of design and construction in terms of integrated energy performance,	000473 62000 10003 000473 62000 10003	71200 - international consultants 71300 - local consultants	4800 4800 3200 3200	100 0 100 0	Training materials for construction inspectors from the main regional and district centers concerning the best practice, methodologies and tools for assessing quality of design and	Fully implemented. Handbook "Methodological guidelines on energy performance monitoring and calculation for residential buildings" of 37 pages and training aids "Analysis of experience and practice in design and construction of energy efficient multi-storey residential buildings" of 33 pages and 8 related presentations were prepared for a training workshop for construction inspectors and other state experts in the field of expert's appraisal of design, construction and operation of energy

	proper installation of equipment and correct use of materials.	000473 04000 00012		71300 - local consultants (translation)	420	32.17	8	387.83	construction in terms of integrated energy performance, proper installation of equipment and correct use of materials prepared and submitted to the EE Department and the Ministry of Architecture and Construction and published online. Deadline - Aug 31, 2014	efficient buildings. The materials were also submitted to the EE Department and the Ministry of Architecture and Construction and published online (e.g., http://www.effbuild.by/publications/assortment/15/).
2.5.2	Organize and conduct, using materials prepared under activity 2.5.1 above, at least one 2-day training workshop for construction inspectors from the main regional and district centers.	000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 04000 00012	71200 - international consultants 71300 - local consultants 71600 - travel 72100 - contract. serv. companies 74200 - audio & video prod. 71300 - local consultants (translation)	4000 1000 1320 4800 100 420	4000 1141.12 951.77 245	100 114 0 20 0 58	0 -141.12 1320 3848.23 100 175	At least 50 construction inspectors from the main regional and district centers were trained via a two-day training workshop in the best practice, methodologies and tools for assessing quality of design and construction in terms of integrated energy performance, proper installation of equipment and correct use of materials. Training materials published offline and disseminated among participants. Deadline - Oct 31, 2014	Fully implemented. Training workshop was held on Dec 10, 2014 in Minsk. About 50 representatives from 11 state expertise organizations (5 central and 6 provincial ones) and 6 design institutions attended the workshop. 92% of participants rated the courses as very actual and important ones for Belarus and their professional careers. About 54% feel that the training fully met their expectations and they will be using its outcomes in their work. All training materials were distributed among the trainees and published on-line. The trainees were given certificates issued by the EE Department.	
Output 2.6	At least 50 supervisors of the leading construction companies trained on the correct installation of the materials and equipment used and provision of other advise for private construction companies on how to integrate elements of energy efficient design in their investment projects throughout the project cycle from the design to construction and building management.							No activity was stipulated for 2014	The Output is to be implemented in 2015-2016 after construction of at least one of the pilot buildings.	
Output 2.7	A two-week training seminar for professional designers, representatives of the state expertise and building supervision in order to familiarize the group with the experiences of energy-efficient building design, construction and governance (including the role of municipal authorities) in EU countries and visiting the facilities (25 people).							At least 20 Belarusian specialists raised their knowledge and skill while taking part in a one-week training seminar along with visits of related exhibitions and facilities.	Fully implemented. Two five-day training seminars were organized and held in Austria in cooperation with the Austrian Energy Agency. Among trainees there were 22 professional designers and policy-makers from 15 organizations. One seminar was devoted to energy efficient building design and another one was devoted to construction policy and governance. Short travel reports with recommendations were presented to Ministry of Architecture and Construction and the EE Department for further use in decision-making.	
2.7.1	Organize and conduct a one-week study visit in Germany, coupled with training workshops for professional designers, representatives of the state expertise and building supervision organizations devoted to the best existing practice in design, construction, operation and governance of energy efficient residential buildings.	000473 62000 10003 000473 04000 00012 000473 62000 10003 000473 04000 00012 000473 04000 00012 000473 04000 00012	71200 - international consultants 71200 - international consultants 71300 - local consultants 71300 - local consultants (translation) 71600 - travel 72100 - contract. serv. companies	4800 0 780 1120 48500 2500	6709 2178.16 780 1037.05 39395.96 758.62	140 0 100 93 81 30	-1909 -2178.16 0 82.95 9104.04 1741.38	At least 20 Belarusian specialists raised their knowledge and skill with regard to the best existing practice in design, construction, operation and governance of energy efficient residential buildings while taking part in a study tour to Germany. Short reports with recommendations prepared, submitted to stakeholders and published online. Deadline - May 31, 2014	Fully implemented. 14 professionals from 9 design companies, state expertise and building supervision organizations and 8 policy-makers from 7 different state run public authorities (e.g., EE Department, Ministry of Architecture & Construction, Gosstroy nadzor, Glavgosstroyexpertiza, Ministry of Housing & Utilities, Construction Departments of the Executive Committees of Mogilev and Minsk), raised their knowledge and skills with regard to the best existing practice in design, construction, operation and governance of energy efficient residential buildings while taking part in two five-day study tours to Austria in Mar 25-29 and Sep 7-11, 2014. The study tours were combined with training workshops. The counterpart of the project in this activity was the Austrian Energy Agency, which in line with the project's requests perfectly performed all logistics, invited and engaged highly professional lecturers, and organized visits to a number of demonstration new energy efficient construction sites. Short reports with recommendations, as to how to promote and facilitate energy efficiency measures in national housing, were prepared and submitted to stakeholders. Short description of the study tours along with study materials were published online (e.g., http://www.effbuild.by/news/305.html).	
Output 2.8	Other required training, networking and exchange of knowledge and lessons learnt by building on co-operation with other international initiatives promoting energy efficient and environmentally sustainable building construction							At least 10 Belarusian specialists and decision-makers participated in at least three study visits and three international events dedicated to energy efficient and environmentally sustainable building construction and operation.	Ten Belarusian specialists and decision-makers participated in one study visit and three international events abroad dedicated to energy efficient and environmentally sustainable building construction and operation. The visitors have become acquainted with legal framework, standards and policies exercised in a number of leading European countries with regard to design, construction and operation of energy efficient residential buildings. As a result, they recommended activities intended for promoting and facilitating energy efficiency measures in national housing. The activities under this Output will be continued in 2015-2016.	
2.8.1	Monitor and cooperate with other international initiatives to prepare quarterly plans for study visits and forthcoming international and regional events dedicated to energy efficient and environmentally sustainable building construction and operation.	000473 62000 10003 000473 04000 00012	71200 - international consultants 71300 - local consultants (translation)	1900 240	1900	100 0	0 240	Quarterly plans with description of selected events and sites for taking part in forthcoming international and regional conferences and study visits, dedicated to energy efficient and environmentally sustainable building construction and operation, along with corresponding ToRs for travels and financial support documents prepared by the PIU and approved by the UNDP and EE Department. During the year	Fully implemented. The monitoring of different international initiatives dedicated to energy efficient and environmentally sustainable building construction and operation was conducted and the most relevant events were selected. Quarterly reports with description of the selected events, specifications for business trips and the accompanying financial documents were prepared by the project. Based on the reports travel requests were prepared and submitted quarterly and approved by UNDP CO and the EE Department.	

2.8.2	Organize study visits in appropriate EU country(ies), selected as per activity 2.8.1, devoted to the best existing practice in application of the energy performance standards, energy efficiency improvement technologies, construction materials, building operation and maintenance experience to residential buildings.	000473 62000 10003	71200 - international consultants	3809	4058	107	-249	At least 10 Belarusian specialists raised their knowledge and skill in the best existing practice in application of the energy performance standards, energy efficiency improvement technologies, new construction materials, up-to-date building operation and maintenance experience to residential buildings during at least two study tours conducted in EU countries.	Fully implemented. One five-day study tour to the United Kingdom during March 3-7, 2014 was organized and carried out with a focus on policies and standards, and as well as on advanced principles in design, construction and operation of energy efficient buildings. Six professionals and officials from NIPTIS, Mogilevsky UKS, EE Department and Vitebsk Oblast EE Department took part in the visit. Short reports with recommendations, as to how to introduce the best existing practice in application of the energy performance standards, energy efficiency improvement technologies, new construction materials, up-to-date building operation and maintenance experience to Belarusian residential building sector, were prepared and submitted to stakeholders.
		000473 62000 10003	71300 - local consultants	827.79	827.79	100	0		
		000473 62000 10003	71300 - local consultants (translation)	2454.32	2454.32	100	0	Short reports with recommendations prepared. During the year	
		000473 62000 10003	71600 - travel	40959.6	16610	41	24349.6		
2.8.3	Provide informational and financial support for Belarusian specialists and decision-makers in their participation in at least three international events, including the 18th International Passive House Conference and Exhibition.	000473 62000 10003	71200 - international consultants	1911		0	1911	In total at least 10 Belarusian specialists and decision-makers took part in at least three relevant international events and raised their knowledge and experience, as well as shared related information, specified policy approaches and domestic strategies in the field of energy efficient housing. During the year	Fully implemented. Two persons from ALC "Aquaecology" and Ministry of Energy took part in the UNDP regional educational seminar on sustainable energy in Turkey during May 13-14, 2014. One official from the EE Department took part in the training week of the International Energy Agency, held in France during April 7-11, 2014. One expert from NIPTIS took part in the Annual 18th International Conference on Passive Houses in Germany during April 25-27, 2014. Three representatives of the EE Department took part in UNECE sessions in Geneva in November 17-21, 2014. Based on the results of these trips, the participants prepared short trip reports containing recommendations.
		000473 62000 10003	71300 - local consultants	1020	1020	100	0		
		000473 62000 10003	71600 - travel	21219.4	18884.86	89	2334.54		
		000473 62000 10003	contract. serv. companies	1711.09	1133.42	66	577.67		
2.8.4	Provide support for Belarusian specialists and decision-makers in organizing and implementation of study visits to similar UNDP projects.	000473 62000 10003	71300 - local consultants	1400	1400	100	0	At least 3 project experts raised their knowledge and skills in conducting and implementing energy efficiency improvement projects, and shared experience, strategy and technical solutions while taking part in at least one study visit and joint workshop with experts of similar UNDP projects. During the year	Fully implemented. The project organized a brief meeting on Dec 18, 2014 with heads and experts of the UNDP/GEF project "Energy efficient design and construction of residential buildings in Kazakhstan". The parties exchanged information about project implementation and promoted establishment of cooperation between Belarusian and Kazakh experts. The parties also agreed in conducting mutual study visits to both projects. Six project experts attended a meeting with PIU members of the said project.
		000473 62000 10003	71600 - travel	4150		0	4150		
Bank Fee		000473 62000 10003	74510 - bank charges	170.25	84.55	50	85.7		
Bank Fee		000473 04000 00012	74510 - bank charges	50	48.01	96	1.99		
REALIZED GAIN/REALIZED LOSS		000473 62000 10003	76125/76135	0	-51.53				
Outcome 2 - total:				221,582	179,724	81%	41,807		
Outcome 3: Demonstrated energy and cost-saving potential of new energy efficiency measures in at least three new residential buildings in two Belarusian cities									
Output 3.1	Finalized background studies for and design of the selected demo buildings by applying integrated building design principles and taking into account new technologies and approaches for meeting the HVAC needs of those buildings in a most energy and cost efficient way							A relevant part of design and construction documents for energy efficiency improvement in at least two of the pilot buildings approved by respective prime-developers and submitted for the state expertise along with the overall package of design and construction documents.	Research of the main architectural and engineering characteristics of all three pilot buildings has been conducted, requirements to engineering systems of HVAC, hot water and electricity supply have been formulated based on new technologies and measures suggested and proven by the project. The section "Energy Efficiency of the Pilot Buildings" as a part of overall design & construction documentations for a 10-storey house in Grodno (the builder is RUE "Grodnograzhdan-proyekt Institute") and a 19-floor house in Minsk (the builder is JSC MAPID), has been completed. The documentation for the pilot site in Grodno has been passed the State Expertise. The documentation for the pilot site in Minsk has been prepared for the State Expertise. The development of design & construction documentations for the pilot 10-storey house in Mogilev (the builder is "UKS Mogilev") is underway. The project has compiled technical specifications, ToR and RfQ, and conducted a tender to procure HVAC equipment for the pilot building in Grodno. The purchase agreement has been signed with "SRC "Magister" LLC. This Output will be finalized in the second quarter of 2015.
3.1.1	Based on the results of this output from 2013, complete preconstruction simulations and exploratory designs of measures, technological methods, installations and equipment for energy efficiency improvement of the three pilot residential buildings (in Grodno, Minsk and Mogilev).	000473 62000 10003	71200 - international consultants	1600	1600	100	0	A report, pre-design drawings and other relevant documentations for siting of the energy efficiency installations and equipment prepared, examined and approved by prime-developers. Deadline - Feb 14, 2014	Fully implemented. Preconstruction simulations and exploratory designs have been conducted for all the three pilot buildings and the related proposals on introduction of measures, technological methods, installations and equipment for energy efficiency improvement of three pilot residential buildings in Grodno, Minsk and Mogilev have been prepared and communicated to developers and other stakeholders.
		000473 62000 10003	71300 - local consultants	5599.69	5599.69	100	0		
		000473 62000 10003	71300 - local consultants (translation)	240	240	100	0		
		000473 62000 10003	71600 - travel	1200.13		0	1200.13		
3.1.2	Based on the results of activities 3.1.1 above, complete all necessary pre-developments concerning applicable building space-and-planning parameters, other technical and design solutions, conceptual design of tools, hardware, installations and equipment for	000473 62000 10003	71200 - international consultants	1800	1800	100	0	A preliminary design of building space-and-planning parameters, other technical and design solutions, conceptual design of tools, hardware, installations and equipment for energy efficiency improvement in at least two of the selected buildings	Fully implemented. Predevelopment activities have been executed, all necessary applicable building space-and-planning parameters, other technical and design solutions, have been proposed and conceptual design of tools, hardware, installations and equipment for pilot buildings in Grodno and Minsk has been elaborated.
		000473 62000 10003	71300 - local consultants	5600	251.48	4	5348.52		
		000473 62000 10003	71600 - travel	1000	54	5	946		

	energy efficiency improvement of at least two (in Grodno and Minsk) of the three pilot residential buildings.	000473 62000 10003	72100 - contract. serv. companies (NIPTIS, budget 2013)	323.03 323.03	100	0	completed and submitted to the EE Department and respective prime-developers and duly approved. Deadline - Feb 25, 2014	
3.1.3	Based on the preliminary design of measures for energy efficiency improvement as per activities 3.1.1-3.1.2 above, complete preliminary specifications for the equipment and installations needed and determine potential equipment manufacturers and suppliers.	000473 62000 10003	71200 - international consultants	1500 1500	100	0	A report containing specifications for the equipment and installations and list of potential equipment manufacturers and suppliers prepared and submitted to prime-developers and the EE Department. Deadline - Feb 28 2014	Fully implemented. Preliminary specifications of the equipment and installations designed for pilot buildings in Grodno and Minsk have been prepared. The specifications were approved by the developers of the two mentioned buildings. The specifications for the HVAC system with exhaust air heat recovery with definitions of potential producers and suppliers of the equipment have been finalised on the basis of preliminary design and submitted to the main developers.
		000473 62000 10003	71300 - local consultants	2300 2300	100	0		
		000473 62000 10003	71300 - local consultants (translation)	420 350	83	70		
3.1.4	Based on the results of activities 3.1.1-3.1.3 above and in view of terms of references received from the prime-developers, complete, submit and approve a related design statement for a full-scale design of tools, hardware, installations and equipment for energy efficiency improvement of the two buildings (in Grodno and Minsk).	000473 62000 10003	71300 - local consultants	2300 2025.29	88	274.71	A design statement for a full-scale design of technologies, tools, hardware, installations and equipment for energy efficiency improvement in at least two of the pilot buildings completed, submitted to and approved by the respective prime-developers. Deadline - March 31, 2014	Fully implemented. The detailed design statements for development of the full-scale design of methods, technical devices, installations and equipment for energy efficiency improvement of pilot buildings in Grodno and Minsk has been developed and submitted to and approved by the developers.
		000473 62000 10003	71600 - travel	1000	0	1000		
		000473 62000 10003	72100 - contract. serv. companies (NIPTIS, budget 2013)	0	0	0		
3.1.5	Based on the results of activities 3.1.1-3.1.4 above, implement all necessary developments concerning the full-scale design of tools, hardware, installations and equipment for energy efficiency improvement of the residential building in Grodno, coordinate and complete a relevant part of construction documents	000473 62000 10003	71300 - local consultants	2300 2300	100	0	A relevant part of design and construction documents for energy efficiency improvement of the pilot building in Grodno completed and submitted to respective prime-developers and the EE Department. Deadline - April 30, 2014	Fully implemented. Justifications, calculations and design developments have been completed for the purpose to modify where it is necessary the design and construction documentations for the pilot building in Grodno. The final version of the section "Energy Efficient Consumption of Energy in the Pilot Buildings" as a part of overall design & construction documentations for a ten-storey house in Grodno (the builder is RUE "Grodnograzhdanproyekt Institute") has been completed and approved by the prime-developer.
		000473 62000 10003	71600 - travel	1000 107.73	11	892.27		
		000473 62000 10003	72100 - contract. serv. companies (NIPTIS, budget 2013)	0	0	0		
3.1.6	Based on the results of activities 3.1.1-3.1.4 above, implement all necessary developments concerning the full-scale design of tools, hardware, installations and equipment for energy efficiency improvement of the residential building in Minsk, coordinate and complete a relevant part of construction documents.	000473 62000 10003	71300 - local consultants	2300 2300	100	0	A relevant part of design and construction documents for energy efficiency improvement of the pilot building in Minsk completed and submitted to respective prime-developers and the EE Department. Deadline - May 31, 2014	Partly implemented. Justifications, calculations and design developments have been completed for the purpose to modify where it is necessary in the preliminary design and construction documentations for the pilot buildings in Minsk. The prime-developer proceeded to finalizing and preparing the entire design and construction documentations. The implementation of this activity will be continued until Feb 28, 2015.
		000473 62000 10003	71600 - travel	1000	0	1000		
		000473 62000 10003	72100 - contract. serv. companies (NIPTIS, budget 2013)	0	0	0		
3.1.7	Based on the results of activities 3.1.5-3.1.6 above, update specifications and a list of hardware, tools, installations and equipment prescribed in the design and construction documents for two residential buildings (in Grodno and Minsk).	000473 62000 10003	71300 - local consultants	2300 2300	100	0	The updated specifications and the list of hardware, tools, installations and equipment for two residential buildings (in Grodno and Minsk) submitted to and approved by respective prime-developers. Deadline - June 31, 2014	Partly implemented. The items of specification and the list of equipment for the pilot buildings in Grodno and Minsk have been updated with regard to their HVAC systems. On the basis of the updated list the ToR on purchase of technical devices, tools, installations and equipment for the HVAC system with recovery of thermal potential of exhaust air in the pilot building in Grodno has been prepared. The implementation of this activity as to other hardware and equipment will be continued until May 2015.
		000473 62000 10003	72100 - contract. serv. companies (NIPTIS, budget 2013)	0	0	0		
3.1.8	Based on the results of activities 3.1.2 and 3.1.7 above, provide procurement of the hardware, tools, installations and equipment prescribed in the design and construction documents for energy efficiency improvement of two residential buildings (in Grodno and Minsk).	000473 62000 10003	71300 - local consultants	4600 4600	100	0	The prescribed hardware, tools, installations and equipment for energy efficiency improvement in the two pilot buildings (in Grodno and Minsk) procured and properly deposited. Deadline - Dec 31, 2014	Partly implemented. The tender has been conducted and the contract has been signed with "SRC "Magister" LLC for delivery of technical devices, tools, installations and equipment for HVAC system with exhaust air heat recovery to be used in the pilot building in Grodno. The implementation of this activity as to other hardware and equipment for buildings in Grodno and Minsk will be continued until the end of the second quarter of 2015.
		000473 62000 10003	72200 - equipment	265401 204450.1	77	60950.87		
		000473 62000 10003	72100 - contract. serv. companies (NIPTIS, budget 2013)	0	0	0		
3.1.9	Prepare and approve general provisions and instructions for techniques of construction and assembling works, building operation and maintenance works with due account of the developed technical and design solutions, tools, hardware, installations and equipment and in compliance with sanitary and safety requirements and other existing standards.	000473 62000 10003	71300 - local consultants	2300 2300	100	0	The general provisions and instructions for techniques of construction and assembling works, operation and maintenance works for energy efficiency improvement in the two pilot buildings (in Grodno and Minsk) developed, submitted to and approved by respective prime-developers. Deadline - July 15, 2014	Partly implemented. General provisions and instructions on methods of installation and construction works, on operation and maintenance of buildings for the pilot building in Grodno have been prepared by the design company and approved by the prime-developer. The implementation of this activity as to the pilot buildings in Minsk and Mogilev will be continued until May 2015.
		000473 62000 10003	72100 - contract. serv. companies (NIPTIS, budget 2013)	0	0	0		
3.1.10	Upon requests and notes from prime-developers, amend, adjust and correct, as	000473 62000 10003	71300 - local consultants	2300 2300	100	0	The overall design of the two pilot buildings completed under supervision provided by	Partly implemented. In line with comments from the prime-developer, all necessary changes and adjustments have been made in the corresponding part of design & construction documentations.

	needed, the relevant part of design and construction documents, and provide a follow-on of this part during overall design of the two pilot buildings (in Grodno and Minsk) elaborated by the prime-developers.	000473	62000	10003		0	0	0	0	the project consultants and NIPTIS, and the resulting design and construction documents for the two pilot buildings (in Grodno and Minsk) submitted to the relevant state authorities for the state expertise. Deadline - Dec 31, 2014	The overall design & construction documentations for the pilot building in Grodno have been submitted for examination to RUE "Glavgosstroyekspertiza" in the beginning of Oct, 2014. The design & construction documentations for the pilot building in Minsk will be prepared for examination in the beginning of Feb 2015. The comments from the State Expertise as to the documentations for the Building in Grodno was received in Oct 20, 2014. The joint meeting of the State Expertise, developers and designers was held in Nov 5, 2014. The developers and designers responded to the comments, and the final conclusion from the State Expertise was received in Nov 28, 2014, in which the State Expertise has issued approval of the design and construction documentations for the pilot building in Grodno. The implementation of this activity will be continued until May 2015.
3.1.11	Carry out respective studies of baseline architecture and engineering characteristics of potential constructions at the pilot site in Mogilev focusing on the number of flats and tenants, energy, heat and hot water consumption, and HVAC system requirements along with customer properties expected.	000473	62000	10003	71200 - international consultants	1800	1800	100	0	A report, prepared on architecture and engineering characteristics of potential constructions of the pilot building in Mogilev, examined and approved by its prime-developer. Deadline - Sep 30, 2014	Fully implemented. The project conducted investigation of baseline architecture and engineering characteristics of the pilot building in Mogilev focusing on the number of flats and tenants, energy, heat and hot water consumption, and HVAC system requirements along with customer properties expected. The results of this study, including inter alia data concerning baseline energy consumption rate of about 60 kW-h/sq.m per year and other input data needed for further design and development of energy efficiency improvement measures, have been presented in project reports and discussed with project partners.
		000473	62000	10003	71300 - local consultants	2300	2300	100	0		
		000473	62000	10003	71300 - local consultants (translation)	420	333	79	87		
		000473	62000	10003	71600 - travel	1000	54	5	946		
		000473	62000	10003	72100 - contract. serv. companies	5000	472.01	9	4527.99		
3.1.12	Based on the results of activity 3.1.11 above, suggest and justify applicable building space-and-planning parameters, other technical and design solutions for the pilot building in Mogilev based on integrated energy performance building design principles and taking into account applicable energy efficiency improvement technologies and approaches.	000473	62000	10003	71200 - international consultants	1900	1900	100	0	Design and technical solutions for different energy efficient options prepared, examined and approved by the prime-developer for the pilot building in Mogilev. Deadline - Oct 31, 2014	Fully implemented. Based on the results of baseline study above, the space-and-planning parameters, other technical and design solutions, which includes inter alia renewable energy technologies, have been suggested in project reports for the pilot building in Mogilev and discussed with project partners.
		000473	62000	10003	71300 - local consultants	3200	3200	100	0		
		000473	62000	10003	71300 - local consultants (translation)	420	123	29	297		
		000473	62000	10003	71600 - travel	1000	126	13	874		
		000473	62000	10003	72100 - contract. serv. companies	5000		0	5000		
3.1.13	Provide least-cost analysis of the options suggested in activity 3.1.12 above and choose the most feasible and cost-effective building performance for the pilot building in Mogilev with minimal possible energy consumption per unit area along with keeping the same or even improved comfort conditions and customer properties stipulated in the baseline design.	000473	62000	10003	71200 - international consultants	1300	1300	100	0	A report on least-cost analysis and respective recommendations for selected options prepared, examined and approved by the prime-developer of the pilot building in Mogilev. Deadline - Nov 30, 2014	Fully implemented. The most cost-effective performance of the pilot building in Mogilev has been suggested in project reports, discussed with project partners and incorporated into RfP, ToR and technical specifications for the services "Development of design and construction documentations for techniques, installations and equipment for energy efficiency improvement of a residential building in Mogilev". The contract with NIPTIS, the leading Belarusian developer, was duly signed in Oct 13, 2014, and NIPTIS has proceeded to the development of the part "Energy Efficient Consumption of Energy in the Pilot Building" and the baseline part of the design and construction documents.
		000473	62000	10003	71300 - local consultants	2300	2300	100	0		
		000473	62000	10003	71300 - local consultants (translation)	420	214.32	51	205.68		
		000473	62000	10003	71600 - travel	1000	276.25	28	723.75		
		000473	62000	10003	72100 - contract. serv. companies	5000		0	5000		
3.1.14	Based on the results of activities 3.1.12 and 3.1.13 above, develop preconstruction simulations and exploratory designs of measures, technological methods, installations and equipment for energy efficiency improvement of the pilot building in Mogilev.	000473	62000	10003	71200 - international consultants	1212.5	1212.5	100	0	A report, design drawings and other relevant documentations for siting of the energy efficiency installations and equipment prepared, examined and approved by developers and adopted by the EE Department. Deadline - Dec 31, 2014 with extension to 2015	Partly implemented. Some of the preconstruction simulations have been prepared in cooperation with NIPTIS for the pilot building in Mogilev. In particular several design options have been considered, calculated and proposed for the forced ventilation system, hot water supply system based on heat pumps, and hot water supply system based on solar heating panels. Final choice of the said options will be made available until the end of Jan, 2015.
		000473	62000	10003	71300 - local consultants	5640	5640	100	0		
		000473	62000	10003	71300 - local consultants (translation)	240	96.17	40	143.83		
		000473	62000	10003	71600 - travel	600	147.26	25	452.74		
		000473	62000	10003	72100 - contract. serv. companies	80000	72500	91	7500		
3.1.15	Based on the results received under activities 3.1.1-3.1.14 above, prepare, discuss and approve action plans for design and construction of the demonstration sites along with schedules for different measures, activities and events in 2015-2016.	000473	62000	10003	71300 - local consultants	800	800	100	0	An action plan as well as respective schedules and activities for 2015-2016 adopted by the EE Department. Deadline - Dec 31, 2014	Partly implemented. The project has prepared and preliminary discussed with project partners a draft of the action plans for design and construction of the three demonstration sites along with schedules for different related measures, activities and events in 2015-2016. The draft was preliminary approved during the PSC meeting held on Dec 5, 2014. To be completed in the first quarter of 2015, after the next PSC meeting.
		000473	62000	10003	71600 - travel	600		0	600		
	Bank Fee	000473	62000	10003	74510 - bank charges	249.73	304.07	122	-54.34		

Output 3.2	Finalized construction of the demo buildings by ensuring that the construction and all installation are made in accordance with the proposed or adopted quality standards and guidelines.								No activity was stipulated for 2014	The Output is to be implemented in 2015-2016 pursuant to the action plans approved (see activity 3.1.15)
Output 3.3	A monitoring report on the construction of the demonstration buildings documenting the experiences and lessons learnt from procuring, installing and testing the new energy efficient materials, construction techniques and appliances.								No activity was stipulated for 2014	The Output is to be implemented in 2015-2016 pursuant to the action plans approved (see activity 3.1.15)
Output 3.4	A monitoring report on the energy performance of the demonstration buildings documenting the actual energy and financial savings and GHG emission reduction from each building as a whole and from each specific energy efficiency measure and appliance tested.								No activity was stipulated for 2014	The Output is to be implemented in 2016 pursuant to the action plans approved (see activity 3.1.15)
Output 3.5	At least 30 private showings of the new buildings organized for local architects, designers, builders and other decision makers, including half-day training sessions with an objective to promote the solutions adopted for the demonstration projects in additional buildings.								No activity was stipulated for 2014	The Output is to be implemented in 2015-2016 pursuant to the action plans approved (see activity 3.1.15)
Outcome 3 - total:		429,786	331,800		77%	97,986				
Outcome 4: Documented, disseminated and institutionalized project results providing a basis for further replication										
Output 4.1	Developed and published public awareness raising materials and completed nation-wide awareness and information campaign advocating the benefits of energy efficiency measures in new buildings, including economic, social, health, environmental and aesthetic aspect and also addressing the GEF/UNDP visibility requirements								At least five interviews and press-releases along with at least three printed materials provided for specialists and tenants. During the year.	The project has organized, held and participated in a number of events providing information about its achievements and plans, i.e.: one press-conference; the UNDP Mother Earth Day event for about 15 mass-media groups; the visit of Ms Helen Clark, UNDP Administrator to Belarus; 10 interviews; the Republican Competition "Energomarafon", and the III International 3D street-art festival "Minsk of the Future". These and other various project occasions were reported in 25 press releases. The project brief has been updated, published and distributed in 400 copies. The leaflet "Energy Efficient Residential Building is a Building of the Future" has been compiled and distributed in 500 copies. More than 50 articles about the project's progress and achievements have been published in mass-media and online. The project has issued 12 brochures of which five brochures have been published in press (300 hard copies). The project successfully uses Twitter, Facebook and issuu.com platforms as social media tools for dissemination of the project results and relevant information. The activities under this Output will be continued in 2015-2016.
4.1.1	Organize and carry out an ongoing information campaign (interviews, press-releases, etc.) about the Project activities.	000473 62000 10003	71400 - service contr. individ.	9593	9276	97	317		At least five interviews and press-releases provided in order to inform a wider audience about the project and its outcomes, as well as to change, to extent possible, people perception and behavior with regard to energy efficiency improvement measures. During the year.	0
		000473 62000 10003	72800 - Inform. Technology Costs Equipment	41	41	100	0			
4.1.2	Prepare and publish articles, leaflets, brochures, etc. for professionals about the best practices concerning use of renewable energy technologies for energy efficiency improvement in residential buildings.	000473 62000 10003	71300 - local consultants	1380	1588	115	-208		At least one printed material for professionals about the best practices concerning use of renewable energy technologies for energy efficiency improvement in residential buildings prepared and issued. During the year.	1090.17
		000473 62000 10003	74200 - audio & video prod.	1197	106.83	9				
4.1.3	Prepare and publish articles, leaflets, brochures, etc. for professionals about the cost-efficiency of energy conservation measures in housing.	000473 62000 10003	71300 - local consultants	1200	1200	100	0		At least one printed material for professionals about the best practices concerning the cost-efficiency of energy conservation measures in housing. During the year.	-521.94
		000473 62000 10003	74200 - audio & video prod.	1344	1865.94	139				
4.1.4	Prepare and publish articles, leaflets, brochures, etc. for general public about the best practices concerning operation and maintenance of energy efficient buildings.	000473 62000 10003	71300 - local consultants	1200	1288.4	107	-88.4		At least five printed material for general public about the best practices concerning operation and maintenance of energy efficient households. During the year.	1469.98
		000473 62000 10003	74200 - audio & video prod.	2000	530.02	27				
4.1.5	In cooperation with the Ministry of Education and the EE Department, provide informational supports to the "Energy Marathon" Republican Contests.	000473 62000 10003	71300 - local consultants	520		0	520		At least one "Energy Marathon" Republican Contest supported and conducted. During the year.	129.41
		000473 62000 10003	74200 - audio & video prod.	2252	2122.59	94				
		000473 62000 10003	71600 - travel	0		0	0			
Output 4.2	Agreed methodology and sustainable institutional arrangements for annual market monitoring keeping track on buildings constructed each year as well as the sale of key building materials, accessories and appliances together with their energy performance characteristics.								No activity was stipulated for 2014	The Output is to be implemented in 2015-2016
Output 4.3	Fully mandated and capacitated state agency with a responsibility to monitor the energy savings and CO2 emission reductions in residential and other buildings, together with the agreed procedures and interagency agreements for compiling the required primary data.								No activity was stipulated for 2014	The Output is to be implemented in 2015-2016
Output 4.4	An approved national energy audit program (including the required funding for its implementation) for promoting larger number of energy audits of residential and other buildings and including a mechanism for using the audit results for elaboration of the energy efficiency strategies for the building sector at the national level.								No activity was stipulated for 2014	The Output is to be implemented in 2015-2016
Output 4.5	Energy-efficiency aspects integrated into the regional and local plans for territorial development being developed by the Institute of Urban and Regional Planning (IRUP).								No activity was stipulated for 2014	The Output is to be implemented in 2015-2016

Output 4.6	An International conference on energy efficiency in residential sector held in Belarus, including a field visit to the pilot demonstration sites and coordination with other UNDP/GEF building energy-efficiency projects									International seminars on "Best Practice in Energy Efficiency Improvement in Residential Buildings" are organized and held annually with a larger International Conference by the end of the Project.	More than 500 participants from Belarus and abroad have received knowledge and information and have had opportunity to discuss about the best practices and policies in the field of design, construction and operation of the energy efficient buildings during three International Conferences organized and held by the project. The activities under this Output will be continued in 2015-2016.
4.6.1	Organize and hold International seminars (or separate conference sessions) on "Best Practice in Energy Efficiency Improvement in Residential Buildings" under the auspices of the Project and in cooperation with the EE Department, UNDP and other similar projects.	000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 04000 00012 000473 04000 00012 000473 04000 00012 000473 62000 10003	71200 - international consultants 71300 - local consultants 71600 - travel 72100 - contract. serv. companies 71300 - local consultants (translation) 71600 - travel 74200 - audio & video prod.	24297 24444 101 -147 1871 12570 672 -10699 2400 0 2400 7204 14317.84 199 -7113.84 2080 2230.76 107 -150.76 0 455.8 0 -455.8 1000 2273.73 227 -1273.73					At least 100 professionals and decision makers raised their knowledge and skills in conducting and implementing energy efficiency improvement projects, and shared experience, strategy and technical solutions while taking part in at least two International seminars on "Best Practice in Energy Efficiency Improvement in Residential Buildings" organized and held under auspices of the project. During the year	Fully implemented. Three International Conferences on best practice in energy efficiency improvement in residential buildings have been organized and held by the project in 2014 in Minsk: (1) "From Decrease of Energy Consumption – to Energy Efficiency and Quality", May 22; (2) "Energy Saving and Increase of Energy Efficiency. Energy Efficiency in Residential Sector: Actual Directions and Practical Experience", Oct 16; (3) "Energy Efficient Buildings of the XXI Century. The European and Domestic Experience of Design, Construction and Operation of Houses with the Minimum Consumption of Energy. Alternative Energy Sources", Dec 18-19. More than 500 participants have received knowledge and information and have had opportunity to share their visions and discuss the best practices and policies exercised in Western and Eastern Europe, Russia and Ukraine in the field of design, construction and operation of the energy efficient buildings. In addition, the project experts prepared materials and presented them at three other conferences organized by other agencies.	
Output 4.7	Regularly updated project website with a link to an Expanded Energy Platform									The Project's website created and linked to the Energy Efficiency Platform	The project website (http://effbuild.by) is properly managed and regularly updated. The English language version is fully operational. The traffic index proves that the project website have become very popular among users from Belarus, Russia, Austria and Ukraine. The activities under this Output will be continued in 2015-2016. The project website has been linked to other networks, e.g., ISSUU Platform, dealing with energy efficiency.
4.7.1	Further update and improve the Russian content of the website with posting the project reports and key publications in the corresponding sections and provide translation of the website current content and information materials into English language.	000473 62000 10003	71300 - local consultants	600 0 600				All Project reports and key publications of 2013 posted. Deadline - March 31, 2014	Fully implemented. The project posted on its website and made available for free download all press-releases, media announcements, handbooks issued, technical reports and key publications published in 2014. General data about the project and its personnel have been updated and relevant. Since opening the site in December, 2013, three updates of its structure have been made for improvement of information filing, more convenient layout and search of key publications. The website content and information materials are presented in the Russian and English (under test). The site can be reached at http://effbuild.by		
4.7.2	Launch the fully operational website with Russian and English content.	000473 62000 10003 000473 04000 00012	71300 - local consultants 71300 - local consultants	200 0 200 0 495.47 0 -495.47				The fully operational Project Website launched. Deadline - May 31, 2014	Fully implemented. The website is fully operational with its content, all press-releases and key information being posted in Russian and English versions.		
4.7.3	Regularly update the project reporting website content (project outcomes and achievements, reports, articles, etc.), specific content (methodologies, standards, recommendations, etc. produced by the project) and news content (announcements, news and press releases, reposted relevant mass-media publications, etc.) along with technically adapted and posted photo (video) content and assure promotion of the website through Internet search engines and social networks.	000473 62000 10003	71300 - local consultants	600 0 600				The Project Website content regularly updated. During the year	Fully implemented. The website content for project reporting is regularly updated. It includes project outcomes and achievements, all technical reports with methodologies, standards, recommendations produced by the project team, articles published by project experts and proceedings and presentations of the conferences, trainings and seminars organized and held by the project. One can find there also news, announcements, press releases, reposted relevant mass-media publications, etc. In order to promote its activities and results the project effectively uses social networks (Facebook, Twitter, and ISSUU platform for digital publications dissemination).		
4.7.4	Based on the traffic index achieved, amend/upgrade the website functionality and visibility, as needed, and suggest measures for further improvement of its quality and popularization.	000473 62000 10003 000473 04000 00012	71300 - local consultants 72100 - contract. serv. companies	200 0 200 1320 0 1320				The report on the results of traffic index analysis prepared, and the Project Website functionality and visibility amended/upgraded accordingly. The measures for its further improvement presented to and approved by the EE Department. Deadline - Sep 30, 2014	Fully implemented. Popularity of the site is quite high. The number of visits (from which about 48% are represented by constant users) and downloadings of information from the site were respectively 190 and 1700 in average every month. The share of visits by foreign users was as follows: EU Member States – 3%, Ukraine – 3%, Russia – 6%. Some suggestions to improve the project website's functionality and visibility have been formulated, e.g., to explore more possibilities in use of pictures and videos, to simplify and better visualize links between pages, etc. The related report was submitted to the EE Department.		
Output 4.8	Annual market monitoring reports for new building construction with the emphasis on energy efficiency aspects.									The energy efficiency building construction market monitoring report for 2013-2014 prepared	The activities under this Output will be continued in 2015-2016.

4.8.1	Conduct a study on energy performances and respective GHG emissions of different residential buildings introduced in the housing construction market in 2013 and 2014, and, on this basis, draft reports on market monitoring for new residential building construction with the emphasis on energy efficiency and GHG emission aspects.	000473 62000 10003		6600 1000 15 5600		71300 - local consultants		A report on the energy efficiency building construction market monitoring for 2013 and 2014 prepared and approved by the EE Department. Deadline - Dec 31, 2014	Partly implemented. The study of energy performance of different residential buildings constructed in 2013 and 2014 has been completed and a draft report on market monitoring for new residential buildings compiled. To be completed in the first quarter of 2015, after receiving full statistical data about residential buildings construction market for 2014.
Output 4.9	Final project report consolidating the results and lesson learnt from the implementation of the proposed project components and recommendations for the required next steps							The Mid-term Report prepared and discussed, and recommendations for adjustments of respective interventions of the Project approved by stakeholders and incorporated into the Project implementation strategy and adaptive approaches.	The study of mid-term performance of the project has been carried out. The period of project implementation from Jan 2012 until Nov 2014 was taken into account. The main findings of the said study have been presented in the Project Mid-Term Evaluation Report. The report has been discussed and approved by EE Department, UNDP CO and UNDP RTA. According to the MTE Report, the overall performance of the project can be rated as satisfactory. Based on the lessons learnt study, the MTE Report also has suggested recommendations for further improvement of the project's performance.
4.9.1	Conduct a Mid-term Project Evaluation Study by means of collecting and analyzing actual data of Project's results and comparing them with the objectives, targets, baseline scope and requirements stipulated in the Project Document.	000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 62000 10003		71200 - international consultants 71300 - local consultants 71600 - travel 71300 - local consultants (translation)	36000 24158 67 11842 4600 4600 100 0 2400 2400 840 605.17 72 234.83			A short progress report of the study prepared and submitted to the EE Department. Deadline - Nov 15, 2014	Fully implemented. The study of mid-term performance of the project has been carried out. The project has hired an international consultant who has met with PIU, UNDP Programme Officer, EE Department, some of project's partners and stakeholders. He conducted observation of problems the project was dealing with, accomplished acquisition and analysis of actual data about project's results and performed comparison of them with the objectives, targets, baseline scope and requirements stipulated in the Project Document. The consultant has also presented the MTE methodology and preliminary results.
4.9.2	Compile and present a Mid-term Evaluation Report describing the current progress of the Project and proving necessary recommendations for adjustment of the Project's implementation strategy.	000473 62000 10003 000473 62000 10003 000473 62000 10003 000473 04000 00012		71200 - international consultants 71300 - local consultants 71600 - travel 71300 - local consultants (translation)	5000 0 5000 2300 2300 100 0 1200 1200 420 964.46 230 -544.46			A Mid-term Evaluation Report completed, presented to the EE Department and stakeholders, approved by the UNDP CO and EE Department, and published online. Deadline - Dec 31, 2014	Fully implemented. The international consultant hired for the MTE study above, completed and presented the MTE Report for approval in the end of Oct, 2014. By the end of Nov, 2014 the report was duly reviewed and commented by Project Manager, UNDP Programme Officer and UNDP RTA. The final version of the MTE Report was submitted in the end of Dec, 2014. According to the report, the overall performance of the project can be rated as satisfactory. Based on the lessons learnt study, the MTE Report also has suggested recommendations for further improvement of the project's performance. The major concern expressed was the uncertainty of co-financing and the delay of project start.
	Bank Fee	000473 62000 10003		74510 - bank charges	182 128.61 71 53.39				
	Bank Fee	000473 04000 00012		74510 - bank charges	23 20.05 87 2.95				
		Outcome 4 - total:			122,064 108,583 89% 13,481				
Effective project management and monitoring ensured									
PM1	Project monitoring and reporting.	000473 04000 00012		71600 - travel	500 307.95 62 192			At least two Project Steering Committee meetings held. Deadline - May 31 and Dec 31, 2014 All project reports submitted and approved in due time. Deadline - July 15, 2014 (for semiannual report to the Ministry of Economy) and Dec 15, 2014 (for APR/PIR and Logs)	A draft of ADWP-2014 was first presented and discussed in the stakeholders meetings in the end of 2013. The final version of ADWP-2014 was approved in Jan 12, 2014 and dully adopted in March 25, 2014 during the Fourth Meeting of the PSC. Budget revision was prepared and submitted in due time. The semiannual reports were prepared and submitted to Ministry of Economy as required, until January 15 and July 15, 2015. The PIR for the GEF was submitted to the UNDP RTA before June 15, 2014. Two meetings of Project Steering Committee were conducted. Technical reports were generally submitted in line with the ADWP-2014. Semi-annual and annual reports for UNDP and GEF, Logs and budget revisions were submitted in time. Other operational tasks were performed as required.
PM2	Project management and project office functioning.	000473 62000 10003 000473 04000 00012 000473 62000 10003 000473 04000 00012 000473 04000 00012 000473 04000 00012 000473 62000 10003		71300 - local consultants 71300 - local consultants (translation) 71400 - contract. serv. individ. 71400 - contract. serv. individ. 71600 - travel 72100 - contract. serv. companies 72100 - contract. serv. companies	1,239 825.00 67 414 3,000 1,090.11 36 1,910 46,522 47,243.37 102 -722 14,000 13,980.00 100 20 1,000 1,000 1,536 302.97 20 1,233 0 338.87 0 -339			Project office successfully operated. Project plan successfully fulfilled. Throughout the Project	The project's office is fully equipped and PIU is successfully functioning. The project's staff has been composed of four SC holders (project manager, administrative and financial assistant, procurement specialist and PR & communication specialist). In addition, eight national and four international consultants have been hired under individual contracts.

000473	62000	10003	72200 - Furniture& Equipm.	1,600	1,640.81	103	-41
000473	62000	10003	72400 - communicat.	1,492	2,344.60	157	-853
000473	62000	10003	72500 - supplies	6,708	7,969.90	119	-1,262
000473	62000	10003	72800 - IT Equipment	1,146	1,154.17	101	-8
000473	04000	00012	73100 - utilities	6,901	8,461.10	123	-1,560
000473	04000	00012	73400 - equipment services	1,500	506.49	34	994
000473	62000	10003	74500 - miscellan.	250	218.71	87	31
000473	04000	00012	74500 - miscellan.	110	216.91	197	-107
000473	62000	10003	76125/76135 REALIZED GAIN/LOSS	0	-15.10	0	15
PM - total:				87,503	86,586	99%	918
Grand total:				1,082,000	906,818	84%	175,131

Prepared by
Cleared by

Alexandre Grebenkov
Alexandre Grebenkov 27 Jan 2015
Igar Tchoulba
Igar Tchoulba 27 Sep 2015

