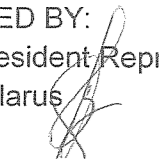
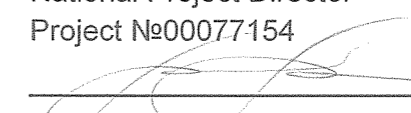


APPROVED BY:
Deputy Resident Representative
UNDP Belarus

E. Paniklova

Date " 2 " FEB 2015 2015

APPROVED BY:
National Project Director
Project №00077154

A. Minenkov
Date " 24 " FEB 2015 2015

Annual Detailed Work Plan 2015

Improving Energy Efficiency in Residential Buildings in the Republic of Belarus
No. 00077154

Activity description	Output costs as per budget accounts, US\$				Total US\$	Donor	Budget Account	Responsible	Annual Target	
	I - 2015	II - 2015	III - 2015	IV - 2015						
Outcome 1: Strengthened legal and regulatory framework and mechanisms to enforce the legislation for improving the energy efficiency of the building sector with the focus on new residential buildings										
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.						Project Manager	Formally adopted technical code(s) containing methodological guidelines for energy performance monitoring and calculation of residential buildings.		
1.1.1	During related conciliation and adoption procedures, provide on-going consulting services directly to the Energy Efficiency Department, Ministry of Architecture & Construction and other relevant authorities with regard to the new technical standards and amendments to existing regulations containing the energy performance monitoring and calculation methodology adopted in 2014 for insertion in the relevant State Standardization Development Programmes.	0	0	0	0	0	GEF	71200 - international consultants	The new technical standards and amendments to existing regulations, which have been submitted in 2014 and adopted for insertion in the Development Program for the System of Technical Regulation, Standardization and Conformity Assessment for 2011-2015 (as amended No1, No2, No3), are formally adopted by competent authority(ies). Deadline - Dec 15, 2015	
		0	0	0	0	0	GEF	71300 - local consultants		
			70	70	70	210	GEF	71300 - local consultants (translation)		
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.						Project Manager	Energy audits of at least 25 residential buildings organized and conducted during the second part of heating season of 2014-2015. Energy audit of another set of at least 25 residential buildings organized and conducted during the 2015 preheating season and the first part of heating season of 2015-2016. Energy audit methodology formally submitted for adoption by competent authority(ies). To be continued in 2016 for completion of energy audit of 25 buildings during the second part of heating season of 2015-2016.		
1.2.1	Complete the energy audits of 25 multi-storey buildings started in 2014 with necessary analysis of the entire heating season data in line with the IPMVP and modern "eeMeasure"-software. Combine one of the energy audit missions with on-site training sessions for at least 30 energy audit experts.	0	0			0	GEF	71200 - international consultants	Energy audits of the 25 residential buildings completed and respective report submitted to stakeholders and published online. At least two on-site training sessions for ca. 30 energy auditors conducted. Deadline - May 15, 2015	
		0	0			0	GEF	71300 - local consultants		
		210	210			420	GEF	71300 - local consultants (translation)		
1.2.2	Based on the results of activity 1.2.1 above and relevant activities conducted in 2013-2014, revise and amend the energy audit methodological guidelines developed in 2014.			0	0	0	GEF	71200 - international consultants	Revised methodological guidelines for energy audits in residential buildings formally submitted for adoption by competent authority(ies) and published online. Deadline - Dec 15, 2015	
				0	0	0	GEF	71300 - local consultants		

			210	210	420	GEF	71300 - local consultants (translation)	
1.2.3	Based on the revised methodology and similar activities accomplished in 2014, develop and approve selection criteria and conduct a study in order to select another set of at least 25 residential buildings (of different age and construction techniques) subjected to energy audits in 2015-2016.		0		0	GEF	71200 - international consultants	The selection criteria and a list of buildings proposed for energy auditing in 2015-2016 (at least 25 buildings) developed, reported to and approved by the Energy Efficiency Department and the Ministry of Architecture & Construction, and published online. Deadline - June 15, 2015
			0		0	GEF	71300 - local consultants	
1.2.4	Based on the results of activity 1.2.3 above, prepare and approve action plans and a ToR for energy auditing the selected residential buildings of different age and construction techniques.		0		0	GEF	71200 - international consultants	The action plans for energy auditing of the selected buildings and related ToR prepared and approved by the Energy Efficiency Department and the Ministry of Architecture & Construction. Deadline - July 31, 2015
			0		0	GEF	71300 - local consultants	
			420		420	GEF	71300 - local consultants (translation)	
1.2.5	Conduct energy audits of at least 25 residential buildings in line of the plans and ToR approved under activity 1.2.4 during the preheating season and the first part of heating. Combine one of the energy audit missions with on-site training sessions for at least 30 energy audit experts.		0	0	0	GEF	71200 - international consultants	Energy audits of at least 25 residential buildings during the 2015 pre-heating season and the first part of heating season of 2015-2016 conducted and respective reports submitted to stakeholders. At least two on-site training sessions for ca. 30 energy auditors conducted. Deadline - Dec 31, 2015
			0	0	0	GEF	71300 - local consultants	
			19,000	19,000	38,000	GEF	72100 - contract. serv. companies	
			210	210	420	GEF	71300 - local consultants (translation)	
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.							Project Manager Pre-operation review and analysis accomplished in 2013. To be continued in 2016, after design and construction of at least one of the pilot buildings.
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.							Project Manager Recommendations for future development of district heat and power supply systems approved by stakeholders and accounted in related state/municipal development programmes.
1.4.1	Based on the results of feasibility analysis of different technical options for heating and hot water supply suggested for multi-family buildings in 2013-2014 and their impact on typical heat supply schemes elaborate recommendations for future cost-effective development of district heat supply systems.		0	0	0	GEF	71200 - international consultants	A report with recommendations and suggestions for state/municipal development programmes concerning the cost-effective district heat and power supply systems with due account of low energy housing prepared, submitted to stakeholders and published online. Deadline - July 31, 2015
			800	800	800	GEF	71300 - local consultants	
				420	420	GEF	71300 - local consultants (translation)	
1.4.2	Based on the results of activity 1.4.1 above, elaborate recommendations for state authorities concerning generalized business-model of project and investment cycle for implementation of energy efficiency		0	0	0	GEF	71200 - international consultants	A report with recommendations and suggestions for a project and investment cycle along with tools and legal instruments to support energy efficiency improvement measures in residential buildings prepared, submitted to stakeholders and published online. Deadline

	cycle for implementation of energy efficiency improvement measures in housing along with tools and legal instruments for monitoring and verification of energy conservation level achieved.	1,200	1,200	1,200	3,600	GEF	71300 - local consultants		prepared, submitted to stakeholders and published online. Deadline - Aug 31, 2015
		420	420	420	1,260	GEF	71300 - local consultants (translation)		
1.4.3	Organize a round table (ad-hoc meeting) to discuss the recommendations and suggestions drafted under activity 1.4.1 and 1.4.2 above.			400	400	GEF	71300 - local consultants	PIU PR Expert	Recommendations as to the cost-effective development of heat supply schemes for district heating and housing operation, which has been elaborated by the project, suggested during discussions held among at least 25 representatives of stakeholders attended the round-table, and a corresponding workshop minute prepared and handed over to stakeholders. Deadline - Oct 15, 2015
				1,500	1,500	GEF	72100 - contract. serv. companies		
1.4.4	Based on the results of the round-table above, revise the recommendations elaborated under activities 1.4.1 and 1.4.2 above and submit them for further approval.			800	800	GEF	71300 - local consultants		The final version of recommendations and suggestions concerning the cost-effective energy supply systems and the business-model to support energy efficiency improvement measures in residential buildings submitted to stakeholders for further consideration and approval and published online. At least one of development programmes in the field of district heating drafted with inclusion of the suggested recommendations. Deadline - Dec 31, 2015
				420	420	GEF	71300 - local consultants (translation)		
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.							Project Manager	Technical Regulations "Energy Efficiency of Buildings" along with a set of necessary national addenda for design, construction and operation of energy efficient buildings drafted and submitted to competent authorities for consideration and further adoption. To be continued in 2016.
1.5.1	On the basis of the roadmap elaborated by the project in 2013 and the State Annual Standardization Plan amended and adopted based on the project's suggestions in 2014, assist the RUE "Stroytehnorm" with finalizing a revised version of the Technical Regulations harmonized with Directive 2010/31/EU.	0	0		0	GEF	71200 - international consultants		A final version of the Technical Regulations "Energy Efficiency of Buildings" submitted to the Gosstandard (Energy Efficiency Department) and Ministry of Architecture & Construction for adoption. Deadline - Dec 31, 2015
		0	0	0	0	GEF	71300 - local consultants		
				600	600	GEF	71300 - local consultants (translation)		
1.5.2	On the basis of the roadmap suggested by the project in 2013 and in line with the activity 1.5.1 above, draft a set of national addenda to the Technical Regulations including the standards dealing with durability of construction materials and new technical options based on, e.g., renewable energy schemes for energy efficient buildings.	0	0		0	GEF	71200 - international consultants		Draft of the standards for inclusion in national addenda to the Technical Regulations "Energy Efficiency of Buildings" submitted to the Energy Efficiency Department and the Ministry of Architecture & Construction and published online. Deadline - Dec 31, 2015
		0	0	0	0	GEF	71300 - local consultants		
				600	600	GEF	71300 - local consultants (translation)		
1.5.3	Provide on-going consulting services to relevant authorities in the course of conciliation and adoption procedures with regard to the regulations drafted by the project under activities 1.5.1 and 1.5.2 above.			0	0	GEF	71300 - local consultants		Technical Regulations "Energy Efficiency of Buildings" along with a set of necessary national addenda for design, construction and operation of energy efficient buildings accepted by competent authorities for further adoption procedure. Deadline - Dec 31, 2015

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.				Project Manager	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. To be continued in 2016.	
1.6.1	Based on the results of activities performed in 2014, prepare justification for stage-by-stage introduction of the building energy efficiency certification system along with conditions, stages and scales of such introduction and develop drafts of relevant regulatory acts necessary for incorporation of the certification system into corresponding regulations.	0	0	0	GEF	71200 - international consultants	Report with results of an assessment and justification of conditions for introduction of residential building energy efficiency certification system, including stages (e.g., with the period of voluntary certification) and scales (e.g., Minsk city, the Oblast centers, the regional centers, small cities) of such introduction, as well as drafts of relevant regulatory acts (concerning, in particular, energy efficiency accredited entities, their subordination and responsibility, accredited laboratories, independent experts, compliance / conformity confirmation procedures, questions of their financing) for the certification and validation systems are submitted to the Energy Efficiency Department and the Ministry of Architecture & Construction and published online. Deadline - Sep 30, 2015
		0	0	0	GEF	71300 - local consultants	
			300	300	GEF	71300 - local consultants (translation)	
1.6.2	Organize a round table (ad-hoc meeting) to discuss conditions of introduction of the building energy efficiency certification system and the relevant technical codes drafted under activity 1.6.1 above.		0	0	GEF	71300 - local consultants	PIU PR Expert Recommendations as to conditions of introduction of energy efficiency certification system for residential buildings and corresponding technical codes are presented and discussed during a round table held among at least 25 representatives of stakeholders attended the round-table, and a corresponding workshop minute prepared and handed over to stakeholders. Deadline - Oct 15, 2015
			600	600	GEF	72100 - contract. serv. companies	
1.6.3	Based on the results of activity 1.6.2, revise the elaborated draft of technical codes for introduction of energy efficiency certification and validation systems and submit it for approval and acceptance.		0	0	GEF	71300 - local consultants	The revised draft of technical codes for energy efficiency certification and validation systems formally submitted to competent authorities for further approval and adoption. Deadline - Dec 31, 2015
			420	420	GEF	71300 - local consultants (translation)	
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.				Project Manager	The quality standards and a system of energy efficiency certification for the materials, accessories and appliances used in the construction sector for residential buildings formally submitted for adoption. To be continued in 2016.	
1.7.1	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 construction materials, accessories and appliances used in the construction sector.	0	0	0	GEF	71200 - international consultants	A report on the results of critical analysis of best practices of energy certification of construction materials, accessories and appliances used in the construction sector with necessary recommendations concerning approaches, methodologies, regulations and institutional arrangements for the energy efficiency certification system applicable to construction materials, accessories and appliances used in the construction sector for Belarus submitted to the EE Department and the Ministry of Architecture & Construction and published online. Deadline - Apr 30, 2015
			300	300	GEF	71300 - local consultants	
			420	420	GEF	71300 - local consultants (translation)	
1.7.2	Based on the results of activity 1.7.1 above and with due account of the Belarusian norms for conformity certification, formulate basic principles, institutional and legal arrangements for the certification system applicable to materials, accessories and appliances in construction sector.		1,000	1,000	GEF	71300 - local consultants	A report containing basic principles, requirements, specifications, institutional and legal arrangements for the certification system applicable to materials, accessories and appliances in construction sector submitted to the EE Department and the Ministry of Architecture & Construction and published online. Deadline - July 31, 2015
			420	420	GEF	71300 - local consultants (translation)	

1.7.3	Organize a round table (ad-hoc meeting) to discuss the provisions drafted under activity 1.7.2 above.			400		400	GEF	71300 - local consultants	PIU PR Expert	Recommendations as to technical, institutional and legal arrangement of the certification system suggested during discussions held among at least 25 representatives of stakeholders attended the round-table, and a corresponding workshop minute prepared and handed over to stakeholders. Deadline - August 15, 2015
				600		600	GEF	72100 - contract. serv. companies		
1.7.4	Conduct a critical analysis of the best European and other internationally recognized methodologies and relevant tools for monitoring and compliance checking of materials, accessories and appliances used in residential buildings.		0			0	GEF	71200 - international consultants		A report, based on the results of critical analysis, with necessary recommendations on the methodologies and tools for validation of compliance of construction materials, building accessories and appliances with energy efficiency norms and requirements for residential buildings submitted to the Energy Efficiency Department and the Ministry of Architecture & Construction and published online. Deadline - July 31, 2015
			400	400		800	GEF	71300 - local consultants		
			420			420	GEF	71300 - local consultants (translation)		
1.7.5	Elaborate, on the basis of the results of activities 1.7.3 and 1.7.4 above, a draft of practical procedures for a mandatory system of energy efficiency certification of materials, accessories and appliances used in residential buildings along with a system of monitoring and compliance checking.		0			0	GEF	71200 - international consultants		A report containing the draft of practical procedures for a mandatory system of energy efficiency certification of materials, accessories and appliances used in residential buildings along with a system of monitoring and compliance checking submitted to the Energy Efficiency Department and the Ministry of Architecture & Construction and published online. Deadline - August 31, 2015
			500	500		1,000	GEF	71300 - local consultants		
			420			420	GEF	71300 - local consultants (translation)		
1.7.6	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 1.7.5 above.			400		400	GEF	71300 - local consultants	PIU PR Expert	Recommendations as to the elaborated procedures and tools for energy efficiency certification and validation systems for materials, accessories and appliances used in residential buildings suggested during discussions among at least 25 representatives of stakeholders attended the round table, and a corresponding minute prepared and handed over to stakeholders. Deadline - Sep 30, 2015
				600		600	GEF	72100 - contract. serv. companies		
1.7.7	Based on the results of activity 1.7.6, revise the elaborated draft of practical procedures along with methodologies and relevant monitoring and compliance checking tools for energy efficiency certification and validation systems for materials, accessories and appliances used in residential buildings and submit it for approval and adoption.				600	600	GEF	71300 - local consultants		The revised draft of practical procedures and institutional arrangements for energy efficiency certification and validation systems materials, accessories and appliances used in residential buildings formally submitted to competent authorities for further approval and adoption. Deadline - Dec 31, 2015
	Bank fee	60	60	60	70	250	GEF	74510 - bank charges		Bank charges. During the year
Outcome 1 total:		2,690	5,220	30,830	22,400	61,140				

Outcome 2: Enhanced capacity of the Belarusian specialists to implement and effectively enforce the new energy efficiency building standards and construction norms

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.								Project Manager	At least four handbooks on design and construction of new energy efficient buildings prepared, approved by stakeholders, disseminated through Internet and published (300 copies each).
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2.1.1	Using the texts prepared by local and international experts in 2014, complete publishing and disseminating offline and online a set of specific technical information materials for different target groups, as follows:									Handbooks "Design of HVAC Systems for Energy Efficient Multi-storey Residential Buildings", "Design of Heating and Hot Water Supply Systems Based on Heat Pumps for Energy Efficient Multi-storey Residential Buildings", and "Design of Hot Water Supply System Based on Solar Collectors for Energy Efficient Multi-storey Residential Buildings" published (300 copies each). Deadline - Aug 31, 2014
2.1.1.1	<i>Handbook "Design of HVAC Systems for Energy Efficient Multi-storey Residential Buildings"</i>	0		0	GEF	71300 - local consultants			PIU PR Expert	The handbook published offline (300 copies) and online. Deadline - June 30, 2014
		1,700		1,700	GEF	74200 - audio & video prod.				
2.1.1.2	<i>Handbook "Design of Heating and Hot Water Supply Systems Based on Heat Pumps for Energy Efficient Multi-storey Residential Buildings"</i>	0		0	GEF	71300 - local consultants			PIU PR Expert	The handbook published offline (300 copies) and online. Deadline - July 31, 2014
		1,700		1,700	GEF	74200 - audio & video prod.				
2.1.1.3	<i>Handbook "Design of Hot Water Supply System Based on Solar Collectors for Energy Efficient Multi-storey Residential Buildings"</i>	0		0	GEF	71300 - local consultants			PIU PR Expert	The handbook published offline (300 copies) and online. Deadline - Aug 31, 2014
		1,700		1,700	GEF	74200 - audio & video prod.				
2.1.2	Based on the experience gained by the project during the design of three energy efficient multi-storey residential buildings in Grodno, Minsk and Mogilev prepare, publish and disseminate offline and online a handbook "Design Implementation of Energy Efficiency Performance in Residential Buildings in Belarus".		2,500	2,500	5,000	GEF	71200 - international consultants			The handbook prepared, approved by the Energy Efficiency Department and the Ministry of Architecture and Construction and published offline (300 copies) and online. Deadline - Dec 31, 2015
			0	0	0	GEF	71300 - local consultants		PIU PR Expert	
				1,700	1,700	GEF	74200 - audio & video prod.			
2.1.3	Prepare specifications and nomenclatures, conduct tender procedures and perform procurement of the state-of-the-art software tools to be used by local design companies for modeling and designing a complex multi-system comprised of different and superposed energy sources, including renewables.	0	0		0	GEF	71300 - local consultants		Project Procurement Specialist	The prescribed software tools procured and properly installed in the premises of one of the design companies, which are project partners, and used in full for project purposes and future developments. Deadline - June 30, 2015
			3,000		3,000	GEF	72800 - InfoTechEq			
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								Project Manager	Three syllabi on energy efficient construction materials, energy efficient building design principles and energy efficient architectural engineering introduced in curricular of at least two core universities. To be continued in 2016.
2.2.1	Based on the syllabi and other curricular materials drafted in 2014 introduce in selected universities three subjects: (i) Designing of Energy Efficient Buildings; (ii) Architectural Engineering Based on Energy Efficient			4,800	4,800	GEF	71200 - international consultants			At least two selected universities (e.g., Belarusian National Technical University and Brest State Technical University) adjusted their curricular with the syllabi and other curricular materials elaborated by the project in 2014 on three subjects: (i) Designing of Energy Efficient

	Architectural Engineering Based on Energy Efficient Technologies of Building Installations; (iii) Energy Efficient Building Materials, Wares and Technologies.		0	0	GEF	71300 - local consultants	PIU PR Expert	the project in 2014 on three subjects: (i) Designing of Energy Efficient Buildings; (ii) Architectural Engineering Based on Energy Efficient Technologies of Building Installations; (iii) Energy Efficient Building Materials, Wares and Technologies. Deadline - Dec 31, 2015
			3,400	3,400	GEF	74200 - audio & video prod.		
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.						Project Manager	Completed in 2014
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.						Project Manager	Completed in 2014
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.						Project Manager	Completed in 2014
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.						Project Manager	At least 50 supervisors of the leading construction companies trained on how to integrate elements of energy efficient design in their investment projects. To be continued in 2016, after construction of at least one of the pilot buildings.
2.6.1	Prepare training materials (handbooks, tutorials, presentations) concerning the correct installation of the materials and equipment for energy efficiency improvement as well as other recommendations 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.		5,000	5,000	GEF	71200 - international consultants		Training materials for construction companies on integrating energy efficiency improvement measures into investment and project cycles prepared and submitted to the Energy Efficiency Department and the Ministry of Architecture & Construction and published online. Deadline - Oct 31, 2015
			3,500	3,500	UNDP	71300 - local consultants		
			420	420	UNDP	71300 - local consultants (translation)		
2.6.2	Organize and conduct, using materials prepared under activity 2.6.1 above, at least one 2-day training workshop for construction companies.		2,400	2,400	GEF	71200 - international consultants		At least 50 supervisors and principal staff members of construction companies were trained via a two-day training workshop in best practice, methodologies and tools used in business models for construction of energy efficient buildings. Training materials published offline and disseminated among participants. Deadline - Nov 30, 2015
			240	240	UNDP	71300 - local consultants		
			4,800	4,800	GEF	72100 - contract. serv. companies	PIU PR Expert	
			100	100	GEF	74200 - audio & video prod.		
			420	420	UNDP	71300 - local consultants (translation)		
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).						Project Manager	Completed in 2014

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.					Project Manager	All training materials elaborated by the project in 2013-2014 handed over to a specialized advanced training institution. At least 15 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.	
2.8.1	Provide necessary recommendations and support in transfer and adjustment of all training materials (handbooks, tutorials, presentations) and curricular prepared and tested under the scope of the project in 2013-2014 to the Inter-branch Advanced Training and Personnel Retraining Institute, one of the leading advanced training institutions in the field of construction.		0 6,800		0 6,800	GEF 71300 - local consultants GEF 74200 - audio & video prod.	PIU PR Expert	All training materials, tutorials, handbooks and presentations elaborated by the project and tested during 2013-2014 trainings, including those under outputs 2.3-2.5 above, updated, adjusted to specific needs and audiences and handed over to the Inter-branch Advanced Training and Personnel Retraining Institute along with necessary recommendations for further continued trainings. Deadline - June 30, 2015
2.8.2	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.	0 80	0 80	200 80	400 320	GEF 71200 - international consultants UNDP 71300 - local consultants (translation)		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 Energy Efficiency Department. During the year
2.8.3	Organize study visits in appropriate EU country, selected as per activity 2.8.2, devoted to the best existing practice in application of energy efficiency improvement technologies and construction materials to residential buildings.		0 0 1,120 8,800		0 0 1,120 8,800	GEF 71200 - international consultants GEF 71300 - local consultants UNDP 71300 - local consultants (translation) GEF 71600 - travel		At least 5 Belarusian specialists in design, construction and operation of buildings raised their knowledge and skill in the best existing practice in application of energy efficiency improvement technologies and new construction materials to residential buildings during a study tour conducted in one of the EU countries. Short reports with recommendations prepared. During the first half of the year
2.8.4	Organize study visits in appropriate EU country, selected as per activity 2.8.2, devoted to the best existing practice in application of energy performance standards, building operation and maintenance experience to residential buildings.		0 0 1,120 8,800		0 0 1,120 8,800	GEF 71200 - international consultants GEF 71300 - local consultants UNDP 71300 - local consultants (translation) GEF 71600 - travel		At least 5 Belarusian specialists in design, construction and operation of buildings raised their knowledge and skill in the best existing practice in application of energy performance standards, up-to-date building operation and maintenance experience to residential buildings during a study tour conducted in one of the EU countries. Short reports with recommendations prepared. During the second half of the year
2.8.5	Provide informational and financial support for Belarusian specialists and decision-makers in their participation in at least three international events,	0		0	0	GEF 71300 - local consultants		In total at least 5 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,

	selected as per activity 2.8.2, including the 18th International Passive House Conference and Exhibition.	1,120	1,120		1,120	3,360	UNDP	71300 - local consultants (translation)		specified policy approaches and domestic strategies in the field of energy efficient housing. During the year
		3,300	2,040		2,040	7,380	UNDP	71600 - travel		
2.8.6	Provide support for Belarusian specialists and decision-makers in organizing and implementation of study visits to similar UNDP projects.				0	0	GEF	71300 - local consultants		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
					1,600	1,600	GEF	71600 - travel		
	Bank fee, GEF	40	40	40	50	170	GEF	74510 - bank charges		Bank charges. During the year
	Bank fee, UNDP	10	10	10	20	50	UNDP	74510 - bank charges		Bank charges. During the year
	Outcome 2 total:	9,650	23,010	12,750	34,390	79,800				

Outcome 3: Demonstrated energy and cost-saving potential of new energy efficiency measures in at least three new residential buildings in three Belarusian cities

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.								Project Manager	Overall packages of design and construction documents for three energy efficient pilot residential buildings submitted to and approved by the state expertise. All permissions necessary for construction of the said buildings obtained from competent authorities.
3.1.1	Based on the results of this output from 2014, complete overall design and construction documentations for measures, technological methods, installations and equipment for energy efficiency improvement of two pilot residential buildings in Grodno and Minsk with due account of notes, comments and recommendations from the state expertise.	0				0	GEF	71200 - international consultants		Report, design drawings and other relevant documentations for pilot buildings in Grodno and Minsk prepared, examined and approved by prime-developers for construction. All permissions necessary for construction of the said buildings received. Deadline - Feb 28, 2015
		0				0	GEF	71300 - local consultants		
		240				240	GEF	71300 - local consultants (translation)		
		1,100				1,100	GEF	71600 - travel		
3.1.2	Based on the results of activities implemented in 2014 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 building in Mogilev.	0				0	GEF	71300 - local consultants		Design statement for a full-scale design of technologies, tools, hardware, installations and equipment for energy efficiency improvement of the pilot building in Mogilev completed, submitted to and approved by the respective prime-developers. Deadline - Jan 15, 2015
		1,300				1,300	GEF	71600 - travel		
		0				0	GEF	72100 - contract. serv. companies (NIPTIS, budget 2014)		
3.1.3	Based on the results of activities 3.1.2 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 Mogilev, coordinate and complete a relevant part of construction documents	0				0	GEF	71300 - local consultants		Relevant part of design and construction documents for energy efficiency improvement of the pilot building in Mogilev completed and submitted to respective prime-developers. Deadline - Jan 31, 2015
		500				500	GEF	71600 - travel		

	part of construction documents.			0	0	GEF	72100 - contract. serv. companies (NIPTIS, budget 2014)		
3.1.4	Prepare and approve general provisions and instructions for techniques of construction and assembling works, building operation and maintenance works for the pilot building in Mogilev 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.			0	0	GEF	71300 - local consultants		The general provisions and instructions for techniques of construction and assembling works, operation and maintenance works for energy efficiency improvement in the pilot building in Mogilev developed, submitted to and approved by respective prime-developers. Deadline - Jan 31, 2015
				0	0	GEF	72100 - contract. serv. companies (NIPTIS, budget 2014)		
3.1.5	Upon requests and notes from prime-developers, correct the relevant part of design and construction documents, and provide a follow-on of this part during overall design of the pilot building in Mogilev elaborated by the prime-developers.			0	0	GEF	71300 - local consultants		The overall design of the pilot building completed under supervision provided by the project consultants and NIPTIS, and the resulting design and construction documents for the pilot building in Mogilev submitted to relevant state authorities for state expertise. Deadline - Feb 28, 2015
				0	0	GEF	72100 - contract. serv. companies (NIPTIS, budget 2014)		
3.1.6	Based on the results of activities 3.1.2-3.1.5, complete overall design and construction documentations for measures, technological methods, installations and equipment for energy efficiency improvement of two pilot residential buildings in Mogilev with due account of notes, comments and recommendations from the state expertise.		4,400		4,400	GEF	71200 - international consultants		Report, design drawings and other relevant documentations for the pilot building in Mogilev prepared, examined and approved by prime-developers for construction. All permissions necessary for construction of the said building received. Deadline - May 31, 2015
			0	0	0	GEF	71300 - local consultants		
			240	240	480	GEF	71300 - local consultants (translation)		
			500	500	1,000	GEF	71600 - travel		
			0	0	0	GEF	72100 - contract. serv. companies (NIPTIS, budget 2014)		
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.							Project Manager	Construction of the demo buildings is underway and the construction and all installations are made in accordance with the proposed energy efficiency performance standards and other adopted quality standards and guidelines. To be continued in 2016.
3.2.1	Based on the design and construction documents for measures for energy efficiency improvement as per output 3.1 above, complete preliminary specifications for the equipment and installations needed and		3,200		3,200	GEF	71200 - international consultants		Report containing specifications for the equipment and installations for three pilot buildings in Grodno, Minsk and Mogilev and a list of potential equipment manufacturers and suppliers prepared and submitted to prime-developers and the Energy Efficiency Department. Deadline

	for the equipment and installations needed and determine potential equipment manufacturers and suppliers for the pilot buildings in Grodno, Minsk and Mogilev.		0			0	GEF	71300 - local consultants		prime-developers and the Energy Efficiency Department. Deadline - March 31, 2015
			420			420	GEF	71300 - local consultants (translation)		
3.2.2	Based on the results of activities 3.2.1 above, and after approval of design documentations by the State Expertise, update specifications and a list of hardware, tools, installations and equipment prescribed in the design and construction documents for the three pilot buildings.		0			0	GEF	71300 - local consultants	Project Procurement Specialist	The updated specifications and the list of hardware, tools, installations and equipment for three pilot buildings in Grodno, Minsk and Mogilev submitted to and approved by respective prime-developers. The ToR, RfQ (or ItB) and other documents necessary for tender procedures prepared and approved by UNDP and the Energy Efficiency Department. Deadline - June 30, 2014
			0			0	GEF	72100 - contract. serv. companies (NIPTIS, budget 2014)		
3.2.3	Based on the results of activities 3.2.1 and 3.2.2 above, conduct tender procedures and perform procurement of the hardware, tools, installations and equipment prescribed in the design and construction documents for energy efficiency improvement of the three pilot buildings.			0	0	0	GEF	71300 - local consultants	Project Procurement Specialist	The prescribed hardware, tools, installations and equipment for energy efficiency improvement of the three pilot buildings procured and properly deposited. Deadline - Dec 31, 2015
				200,000	1,500,000	1,700,000	GEF	72300 - materials & goods		
				0	0	0	GEF	72100 - contract. serv. companies (NIPTIS, budget 2014)		
3.2.4	Provide supervision and monitoring of construction of the three pilot buildings. Provide recommendations and take timely measures, as needed.		1,600	1,600	1,600	4,800	GEF	71200 - international consultants		Reports containing results of supervision and monitoring of construction work for three pilot buildings in Grodno, Minsk and Mogilev along with recommendations prepared, on monthly basis, and submitted to prime-developers and the Energy Efficiency Department. During the year
			0	0	0	0	GEF	71300 - local consultants		
			500	1,200	1,200	2,900	GEF	71600 - travel		
			0	0	0	0	GEF	72100 - contract. serv. companies (NIPTIS, budget 2014)		
3.2.5	Based on the results received under activities 3.2.1-3.2.4 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 2016.				0	0	GEF	71300 - local consultants		An action plan as well as respective schedules and activities for 2016 approved by stakeholders and the Energy Efficiency Department. Deadline - Dec 31, 2015
					600	600	GEF	71600 - travel		
	Bank fee	60	60	60	70	250	GEF	74510 - bank charges		Bank charges. During the year
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.								Project Manager	The Output is to be implemented in 2016 pursuant to the action plans approved (see activity 3.2.5)

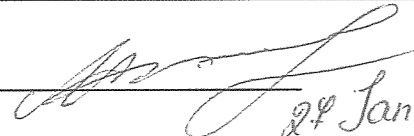
3.4	A monitoring report on the energy performance of the demonstration buildings documenting the actual energy and financial savings and GHG emission reduction from each building as a whole and from each specific energy efficiency measure and appliance tested.							Project Manager	The Output is to be implemented in 2016 pursuant to the action plans approved (see activity 3.2.5)
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.							Project Manager	The Output is to be implemented in 2016 pursuant to the action plans approved (see activity 3.2.5)
Outcome 3 total:		3,940	10,920	202,860	1,503,470	1,721,190			
Outcome 4: Documented, disseminated and institutionalized project results providing a basis for further replication									
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 aesthetical aspect and also addressing the GEF/UNDP visibility requirements.							PIU PR Expert	At least 15 interviews with the project's personnel, experts and partners conducted and not less than 20 press-releases along with at least six printed information and promotion materials provided for specialists and tenants. At least two PR-campaigns on promoting energy efficient housing are launched and successfully completed. To be continued in 2016.
4.1.1	Organize and carry out an ongoing information campaign (interviews, press-releases, etc.) about the Project activities.	4,150	4,150	4,150	4,150	16,600	GEF	71400 - service contr. individ.	At least 15 interviews and not less than 20 press-releases provided in order to inform a wider audience about the project's key achievements, progress and activities, as well 2 PR-campaigns are launched to change, to extent possible, people perception and behavior with regard to energy efficiency improvement measures. In a partnership with the TV, production of a documentary about 2nd generation energy efficient houses as a part of a series "Terra Incognita: Unknown Belarus" is organized. Other PR activities are initiated and managed to support official beginning of construction of three pilot green houses in Minsk, Grodno and Mogilev. Various visibility products and promo texts are designed and produced to support PR-campaigns and construction launch ceremonies in Minsk, Grodno and Mogilev. During the year.
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.			400		400	GEF	71300 - local consultants	At least one printed material for professionals about the best practices concerning design and construction of energy efficient residential buildings prepared and issued. During the year.
				1,050		1,050	GEF	74200 - audio & video prod.	
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.			2,000		2,000	GEF	71300 - local consultants	At least five materials for general public about the best practices concerning operation and maintenance of energy efficient buildings printed and/or disseminated through the Internet. During the year.
				5,250		5,250	GEF	74200 - audio & video prod.	
4.1.5	In cooperation with the Ministry of Education and the EE Department, provide informational supports to the "Energy Marathon" Republican Contests.	360				360	GEF	71300 - local consultants	The "Energy Marathon" Republican Contest supported and conducted. During the year.
		1,500				1,500	GEF	74200 - audio & video prod.	
		330				330	GEF	71600 - travel	
4.1.6	Project information materials	600	600	600	600	2,400	UNDP	74200 - audio & video prod.	Project information materials prepared and published as per activity 4.1.1 above. During the year.

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.						Project Manager	The Output is to be implemented in 2016
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.						Project Manager	The Output is to be implemented in 2016
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.						Project Manager	The Output is to be implemented in 2016
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).						Project Manager	The Output is to be implemented in 2016
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.						PIU PR Expert	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.
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.	2,000	2,000	4,000	GEF	71200 - international consultants		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 one International seminar on “Best Practice in Energy Efficiency Improvement in Residential Buildings” organized and held under auspices of the project. During the year
		0	0	0	GEF	71300 - local consultants		
		250	250	500	GEF	71600 - travel		
		4,500	9,000	13,500	UNDP	72100 - contract. serv. companies		
		210	210	420	UNDP	71300 - local consultants (translation)		
		500	500	1,000	GEF	74200 - audio & video prod.		
4.7	Regularly updated project website with a link to an Expanded Energy Platform.						PIU PR Expert	The Project’s website created and linked to the Energy Efficiency Platform
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.	150	150	600	GEF	71400 - service contr. individ.		All Project reports and key publications of 2014-2015 posted. During the year
		210	210	420	UNDP	71300 - local consultants (translation)		

4.7.2	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.					600		600	GEF	71400 - service contr. individ.		The Project Website content regularly updated along with project content in other networks (Facebook, Twitter). During the year	
4.7.3	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.					200		200	GEF	71400 - service contr. individ.		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 Energy Efficiency Department. Deadline - Sep 30, 2015	
						1,320		1,320	UNDP	72100 - contract. serv. companies			
4.8	Annual market monitoring reports for new building construction with the emphasis on energy efficiency aspects.										Project Manager	The energy efficiency building construction market monitoring report for 2013-2014 prepared	
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, 2014 and 2015, and, on this basis, draft reports containing the data on market monitoring for new residential building construction, results of analysis and respective recommendations with the emphasis on energy efficiency improvement and GHG emission reduction aspects.					2,000	2,000	2,000		6,000	UNDP	71300 - local consultants	Report containing the data on the energy efficiency building construction market monitoring for 2013-2015 prepared along with results of analysis and respective recommendations as to further possibilities for energy efficiency improvement and GHG emission reduction, submitted stakeholders and published on-line. Deadline - Dec 31, 2015
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.										Project Manager	The Output is to be implemented in 2016	
	Bank fee, GEF	25	25	25	25					100	GEF	74510 - bank charges	Bank charges. During the year
	Bank fee, UNDP		10		10					20	UNDP	74510 - bank charges	Bank charges. During the year
	Outcome 4 total:	4,925	16,795	9,045	27,805					58,570			
Effective project management and monitoring ensured													
PM1	Project monitoring and reporting.					250		250		500	GEF	71600 - travel	At least two Project Steering Committee meetings held. Deadline - May 31 and Dec 31, 2015 All project reports submitted and approved in due time. Deadline - July 15, 2015 (for semiannual report to the Ministry of Economy and PIR) and Dec 15, 2015 (for semiannual report to the Ministry of Economy, APR and Logs)
PM2	Project management and project office functioning.	375	375	375	375					1,500	GEF	71300 - local consultants	Project office successfully operated. Project plan successfully fulfilled. Throughout the Project
		750	750	750	750					3,000	UNDP	71300 - local consultants (translation)	

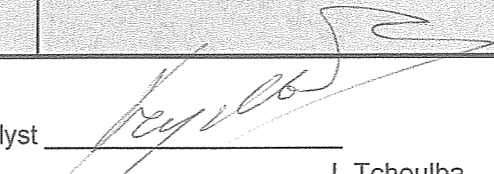
	11,800	11,800	11,800	11,800	47,200	GEF	71400 - contract. serv. individ.	Project Manager
	3,500	3,500	3,500	3,500	14,000	UNDP	71400 - contract. serv. individ.	
	250	250	250	250	1,000	UNDP	71600 - travel	
				2,000	2,000	UNDP	72100 - contract. serv. companies	
	3,000				3,000	GEF	72200 - Furniture & Equipm.	
	375	375	375	375	1,500	GEF	72400 - communicat	
	750		750		1,500	GEF	72500 - Office Supplies	
	2,125	2,125	2,125	2,125	8,500	UNDP	73100 - utilities	
	375	375	375	375	1,500	UNDP	73400 - equipment services	
	1,250	1,250	1,250	1,250	5,000	UNDP	74500 - miscellan.	
	175	175	175	175	700	GEF	74500 - miscellan.	
Project management total:	24,725	21,225	21,725	23,225	90,900			
Total for UNDP					77,010			
Total for GEF					1,934,590			
Total 2014:	45,930	77,170	277,210	1,611,290	2,011,600			

Project Manger
A. Grebenkov


27 Jan 2015

Programme Analyst

I. Tchoulba


27 Jan 2015

