

QUARTERLY PROGRESS REPORT
Quarter I, 1 January – 31 December 2014



Turkmenistan

Project Number: 00077395

Project Title: UNDP/GEF Project “Improving Energy Efficiency in Residential Building Sector of Turkmenistan”

Implementing Agency: Sate Corporation “Turkmengas”

Activity	PLANNED ACTIVITIES	DELIVERABLES	TIMEFRAME		PLANNED BUDGET		ACTUAL EXPENDITURES (list actual expenditures against activities)	PROGRESS ACHIEVED
	(list all tasks planned to be carried out during the quarter in order to implement activities indicated in the approved AWP)	(list all deliverables to be obtained as a result of task implementation)	FROM	TO	Budget Description	Amount US\$		(describe results of activities against quarterly work plan and progress made towards production of deliverables required to generate output)
Outcome 1: <i>Energy consumption in new buildings is reduced relative to existing requirements.</i>								
1.2	1.2.2: Development of new building codes on thermal performance of buildings, including [whole-building] requirements for energy efficiency, as well as associated calculation methodology.	Revised national codes [SNT] “Residential Buildings” and “Roofs and Roofing” adopted and confirmed in 2014.	01/01	31/12				Letter of Agreement with the Ministry of Construction and Architecture (MCA) on development of new building codes of Turkmenistan and methodological instructions for the new SNT is signed by MCA. MCA sent the revised building codes “Residential buildings” and “Roofs and roofing” sent to the Ministry of Justice for approval.
		The SNT «Building Thermal Engineering» and «Building Climatology» revised by the end of 2014.	01/01	31/12				International Consultant to support in revision of the building codes is hired. The ToR for revision of SNT “Building Thermal Engineering” and SNT “Building Climatology” is developed in consultations with MCA. The Company “Kopurli” is hired by UNDP for revision of EE building codes “Building Thermal Engineering” and “Building Climatology”. Ministry of Construction assigned the State Design Institute “Turkmendovletaslama” as a leading organization for revision of SNT “Building Thermal Engineering” and SNT “Building Climatology”. The Institute is requested by the Ministry to cooperate with the project. A draft of SNT “Building Thermal Engineering” is prepared. SNT “Building Climatology” is pending

							approval for use of "Turkmenhydromet" data by its Chairman. Two round tables are carried out by International Consultant with local specialists to review revision results.
1.2	1.3.1: Development of conditions for energy passports and classification of new and renovated buildings, as well as technical methodologies for calculation and assignment of energy-efficiency ratings.	Energy Passport system developed in accordance with revised building codes.	01/06	31/12			A draft of the form "Energy passport" to SNT «Building Thermal Engineering» is developed.
1.3	1.3.2: Development of recommendations on application of a labeling system for new, renovated, and existing residential buildings.	Recommendations developed for implementation of system of labeling of buildings.	01/01	31/03			Recommendations on application of a labeling system for new and renovated or existing buildings in Turkmenistan are prepared and commented by IC on EE building codes and ICTA.
1.4	1.4.1: Development and support for adoption and publication of an official guidance manual for architects and construction engineers on implementation of new energy-efficient building codes.	Confirmation of the manuals for SNT "Residential Buildings" and "Roofs and Roofing"	01/01	31/12			The guidance manuals for SNT «Residential Buildings» and «Roofs and Roofing» are confirmed by the Scientific-Technical Council of MCA.
Outcome 2: Turkengas and other national agencies understand the potential for energy conservation in the building sector and have the knowledge and capacity for determining necessary investment to be made in energy efficiency in buildings.							
2.1	2.1.1: Preparation of multidimensional research on the potential for energy efficiency in existing buildings.	Energy audit carried out for 22 buildings in cities of Turkmenistan conducted. Documentation of results and recommendations completed.	01/02	31/12			Letter of Agreement with the Ministry of Communal Services (MCS) is by MCS. Equipment for energy audit is purchased. The Company "Ak Nyshan" is hired to implement 22 energy audits in 9 cities over all velayats. Pilot buildings for energy audits are selected in 5 velayats. Energy audits in 22 buildings in 9 cities over the country are implemented, reports for each of 5 velayats are delivered.
		Energy consumption in 6 existing pilot buildings equipped with energy metering devices is monitoring.	01/01	31/12			Measurement data of energy consumption is taken regularly for further analysis.
2.2	2.2.1: Development of recommendations on a system of energy management and monitoring of energy consumption in existing residential buildings.	Recommendations and methodologies on monitoring of energy consumption and energy management developed and presented to interested parties.	01/01	31/12			The working meeting with IPs to discuss activities on energy management and selection of pilot complex of residential buildings is carried out in January, 2015. Pilot complex of houses is selected to study possible energy management for the buildings.

								IC is hired to study possible ways for energy management and prepare recommendations on energy management for Koshi pilot houses. The is to be continues next year.
2.2	2.2.2: Correction and confirmation of the methodology of energy audit.	Methodology on energy audit finalized and confirmed by respective IPs.	01/03	01/07				The methodology on implementation of energy audits in residential buildings is finalised.
2.2	2.2.3: Delivery of training seminars on energy management and energy audit for interested parties.	At least 30 professionals, including staff of Turkmenogas, trained in the methodology of monitoring energy consumption.	01/07	31/12				A training programme on implementation of energy audits is developed. The first training is carried out in Dashoguz in December, 2015. Next four trainings in other velayats are planned for next year.
2.2	2.2.4: Preparation of training materials on energy audit, as well as of results of lessons learned after energy audits and activities on energy management.	Results of energy audits and energy management published on the project's website.	01/07	31/12				To be published next year.
2.2	2.2.5: Development of an investment plan on energy efficiency in the residential building stock (construction, reconstruction)	Development of investment plan outline begun.	01/04	31/12				International Consultant on development of investment plan is hired. The outline of a national plan on EE in buildings is drafted.
Outcome 3: Energy-efficient design and technologies are incorporated and visually demonstrated in new and reconstructed residential buildings.								
3.1	3.1.2: Calculation of energy consumption base line for pilot residential buildings.	Baseline of energy consumption for the selected new pilot residential buildings (148U 54-unit building and 114-unit elite building) is calculated	01/01	31/03				Calculations of energy consumption baselines for the 2 selected new pilot residential buildings (148U 54-unit building and 114-unit elite building) are completed and confirmed by IC on EE design.
3.1	3.1.4: Development of initial design and cost estimation documentation for construction of pilot residential buildings.	Design of 2 new elite buildings completed (114-unit and 66-unit).	01/01	30/06				International Consultant to support in design of EE pilot buildings is hired. Designs of demo 114-unit and 66-elite buildings are completed. Design of 114-unit elite building is verified by IC on EE design. Letters of Agreement are signed with the owners (clients) of 114-unit and 66-unit elite buildings. Contract with a subcontractor for construction of 114-unit elite building is signed.
3.1	3.1.5: Receiving of permission for construction of the pilot residential buildings.	The process of admission and passage of design documentation through the State Building Plan Inspection Agency [Gosekspertiza] supported.	01/01	30/04				The design of 114-unit elite building is verified by the State expertise.
3.1	3.1.6: Construction and oversight over construction of the pilot residential buildings.	Construction of a building of the U-148 series and an elite (114-unit) building completed and monitoring begun by the end of 2014. Construction of one 66-unit building begun by the end of 2014.	01/01	31/12				Construction of 148U 54-unit demo building (4-th floor level) and 114-unit elite building (12-th floor level) is nearly completed. Regular visits - 1-2 times a week are undertaken to oversight the construction.
3.1	3.1.9: Continual documentation	Important steps of design and	01/01	31/12				Steps of construction of 2 demo building are

	of the process of design and construction of the 3 pilot residential buildings.	construction documented for each pilot building.						documented.
3.2	3.2.2: Calculation of baseline energy consumption and energy efficiency of 3 residential buildings chosen for reconstruction, using data from energy audits of these buildings.	Correction of baseline calculations for residential buildings under renovation, taking account of parameters of heat supply and cooling.	01/01	31/03				Baseline calculations for residential buildings under renovation are corrected taking account of parameters of heat supply and cooling and verified by IC on EE design.
3.2	3.2.3: Development of Terms of Reference for design of energy-efficient renovation of 3 pilot residential buildings.	“Task order for design of the reconstruction of three pilot buildings” developed and signed.	01/03	30/04				Ministry of Communal Services signed a Deficiency Act for needs for renovation of 3 demo buildings. EE requirements prepared by the project are included to the Act.
3.2	3.2.4: Development of initial design and cost-estimation documentation for the reconstruction of 3 pilot buildings.	Designs of pilot buildings developed for renovation with reduction of energy consumption by at least 44 percent.	01/05	31/07				The Design Institute “Ashgabbatlaslana” is hired to prepare renovation cost estimates according to EE requirements. The renovation cost estimates are developed and delivered.
3.2	3.2.5: Renovation and special technical oversight of implementation of energy-conservation measures for renovation of 3 pilot buildings.	Renovation of pilot buildings completed by the end of 2014.	01/08	31/12				Since MCA is not provided finances for standard renovations of 3 pilot retrofits, the activity is postponed to 2015.
3.2	3.2.6: Monitoring and assessment of energy consumption in the pilot residential buildings.	Monitoring of renovated buildings begun by the end of 2014.	01/12	31/12				The activity is postponed to 2015.
Outcome 4: Replication facilitated via development of skills, prototype designs and policies for energy-efficient buildings.								
4.2	4.2.1: Training on energy-efficient construction and renovation of buildings, and on the experience of implementation of integrated building design for architects and/or engineers.	Seminars delivered on energy-efficient construction and renovation of buildings, and on experience of implementation of integrated building design	01/09	31/12				Presentation of EE construction of demo buildings is provided at the workshop held in December, 2015.
4.2	4.2.2: Development and implementation of educational plans/programmes for students of the Architectural-Construction Institute	A section entitled «Energy conservation» developed and implemented in typical educational programmes of existing disciplines. Educational materials for the section «Energy Conservation» developed for students by the end of 2014.	01/02	31/12				Letter of Agreement with the State Architecture Construction Institute is signed by the Institute. ToR for revision of educational programs and development of methodological materials is developed. One round table is carried out to discuss possible updates of student education programs in light of EE buildings.
4.2	4.2.4: Organization of a study tour for specialists for familiarization with best practices in energy management of residential buildings.	The study tour on energy management conducted.	01/04	31/12				ToR for the study tour is developed. All the arrangements necessary for official nominations are made by the project. Travel and visa arrangements are provided by the project. Since a half of governmental institutions did not confirm participation of their employees, the study

								tour was cancelled by SM.
4.3	4.3.1: Continual communication and regular exchange of results received by the project, among the project team and partners and interested parties.	Work in accordance with the plan of activities on information dissemination to partners and interested parties carried out.	01/01	31/12				A plan of activities on information dissemination to partners and interested parties is established. One article on the project is published in local newspapers.
4.3	4.3.2: Preparation of reports and recommendations (for high-level governmental decision-makers) on the basic strategic questions of the project.	Executive reports on results, conclusions, lessons learned, and policy recommendations prepared.	01/02	30/04				The report on the importance and expected benefits of revised building codes is prepared and commented by IC on EE building codes.
4.3	4.3.3: Organization of high-level round-table meetings for decision-makers for review of the executive reports.	Executive reports on results, conclusions, lessons learned, and policy recommendations presented to key governmental and regional decision-makers.	01/07	31/10				Methodology of implementation of energy audits is delivered to national stakeholders.
4.3	4.3.6: Support for updating of the project website with results of the project.	The project website is regularly updated. Agreement with the national partner concluded by the end of the project on continued operation of the website.	01/07	31/12				The request to post project news and materials is sent to MCA, it is not confirmed by MCA.

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