Annex 5: Energy efficiency research projects

Table 1: Science and research projects focusing on energy efficiency, implemented within the framework of the Scientific Grant Agency and the Slovak Research and Development Agency at higher-education institutions in 2011–2013

Project No	Project duration	Research project title	Source of financing	Subsidy granted (EUR)	Project implementation status
1/0988/12	2012–2015	Energy performance of lighting in buildings *Gašparovský Dionýz, Faculty of Electrical Engineering and Information Technology, Slovak University of Technology*	Scientific Grant Agency	9 288.00	In progress
1/0511/11	2011–2013	Progressive solutions for medical-technology installations and ventilation systems in the creation of an internal environment in buildings to reduce their energy intensity. *Peráčková Jana, Faculty of Civil Engineering, Slovak University of Technology*	Scientific Grant Agency	26 744.00	Completed
1/0976/11	2011–2013	Research and development of new-generation systems for the quasi-full-solar supply of heat to buildings. *Bôszôrményi Ladislav, Faculty of Civil Engineering, Technical University of Košice*	Scientific Grant Agency	17 788.00	Completed
1/1100/12	2012–2015	Smart grids as a component of distribution networks – new consumption measurement and management methods *Beláň Anton, Faculty of Electrical Engineering and Information Technology, Slovak University of Technology*	Scientific Grant Agency	37 401.00	In progress
1/0017/14	2014–2016	SMAP – internal combustion engines powered with alternative fuel made from renewable energy sources *Polóni Marián, Faculty of Mechanical Engineering, Slovak University of Technology*	Scientific Grant Agency	11 112.00	In progress
1/0678/14	2014–2016	Optimisation of technological, technical, economic and biological principles in the production of woody biomass energy *Messingerová Valéria, Faculty of Forestry, Technical University in Zvolen*	Scientific Grant Agency	4 509.00	In progress
1/0729/13	2013–2015	Theoretical, experimental and numerical analysis of the design of energy-saving and environmentally friendly building envelopes *Ďurica Pavol, Faculty of Civil Engineering, University of Žilina*	Scientific Grant Agency	4 857.00	In progress
1/0559/13	2013–2015	Architecture and town planning 2020 – towards a nearly zero-energy standard	Scientific Grant Agency	10 619.00	In progress

Project No	Project duration	Research project title	Source of financing	Subsidy granted (EUR)	Project implementation status
		Krajcsovics Lorant, Faculty of Architecture, Slovak University of Technology			
1/0385/13	2013–2015	Modelling substitution-based changes in the timber market due to growing demand for renewable energy sources *Paluš Hubert, Faculty of Wood Sciences and Technology, Technical University in Zvolen*	Scientific Grant Agency	8 200.00	In progress
VMSP-P-0042-09	2009–2011	New wood preservatives with reduced energy intensity in the production and processing thereof *VUKI a.s.*	Slovak Research and Development Agency – SME Research and Development Support	134 809.00	Completed
VMSP-P-0022-09	2009–2011	Addition of additives to increase pellet production efficiency *BIOMASA, association of legal entities*	Slovak Research and Development Agency – SME Research and Development Support	49 238.00	Completed
LPP-0308-09	2011–2013	Research and development of a design system for low-energy buildings based on wood as a domestic renewable raw material *Faculty of Wood Sciences and Technology, Technical University in Zvolen*	Slovak Research and Development Agency	20 537.00	Completed
SUSPP-0007-09	2011–2013	Enhanced efficiency in the capture and use of rainwater from surface run-off in order to minimise energy intensity *Faculty of Civil Engineering, Technical University of Košice*	Slovak Research and Development Agency	112 800.00	Completed
APVV-0624-10	2011–2014	Symbiosis in the interaction of renewable energy sources and the systemic building-climate-energy link in the ecology of low-energy, green and sustainable architecture *Slovak University of Technology in Bratislava*	Slovak Research and Development Agency	247 231.00	In progress
APVV-0865-11	2012–2015	Innovative, energy-efficient organic LED structures that can be integrated into lighting and display applications *POWERTEC s.r.o.*	Slovak Research and Development Agency	225 000.00	In progress
APVV-	2013–	Heating/cooling panel based on aluminium foam filled with PCMs	Slovak Research	215 885.00	In progress

Project No	Project duration	Research project title	Source of financing	Subsidy granted (EUR)	Project implementation status
0692-12	2016	*Institute of Materials and Machine Mechanics, Slovak Academy of Sciences*	and Development Agency		
Total science and research projects in 2011–2013			1 136 018.00		

Table 2: Research assignments focusing on research into new natural gas based technology with EkoFond resources in the 2011–2013 period

Project No	**Duration of project**	**Research project title**	**Source of funding**	**Subsidy granted (EUR)**	**Project implementation status**
249/PG04/2010A	2011-2013	Experimental designation of the application of natural gas as primary energy for heat in the use of gas-powered heat pumps and RES *University of Žilina, Faculty of Mechanical Engineering, Department of Power Engineering*	EkoFond: Programme 04 – Research, development and introduction of new progressive technology based on natural gas	94 000.00	Completed
247/PG04/2010 B	2011–2012	Modernisation of the energy system at Smolenice Castle *Congress Centre of the Slovak Academy of Sciences, Smolenice*	EkoFond: Programme 04	100 000.00	Completed
561/PG04/2011	2012-2014	Use of software and inspection technology for the identifiability and documentation of gas pipeline facility construction projects *University of Žilina, Faculty of Mechanical Engineering, Department of Technological Engineering*	EkoFond: Programme 04	87 516.00	In progress
563/PG04/2011	2012-2015	Reducing the energy intensity of gas networks by applying new hydrate formation models *Slovak University of Technology, Bratislava, Faculty of Mechanical Engineering*	EkoFond: Programme 04	18 500.00	In progress
567/PG04/2011	2012-2016	Comparing efficiency in the use of natural gas energy in microgeneration units on the principle of the fuel cell and Stirling engine *University of Žilina, Faculty of Mechanical Engineering, Department of Technological Engineering*	EkoFond: Programme 04	96 030.00	In progress
Total EkoFond-supported research projects in 2011–2013			396 046.00		