



European Construction Sector Observatory

Policy measure fact sheet

Slovakia

Green Homes

Thematic Objectives 1 & 3

January 2018



In a nutshell

Implementing body:	Ministry of the Environment, Slovak Innovation and Energy Agency (SIEA)
Key features & objectives:	Increase of the use of Renewable Energy Sources (RES) in households and to reduce greenhouse gas emissions through financial contribution for RES installations in form of vouchers.
Implementation date:	December 2015 – December 2018
Targeted beneficiaries:	Households
Targeted sub-sectors:	Construction companies, providers of energy-efficient solutions for households.
Budget (EUR):	45 million

Despite a sharp decline in greenhouse gas (GHG) emissions since 1990, the Slovak Republic remains a GHG-intensive economy by OECD standards with energy-related CO₂ emissions accounting for over 70% of total GHG emissions in 2012. Renewable energy might play a crucial role in the Slovak Republic's efforts to GHG mitigation and decarbonisation of its electricity production. The main areas for improvement regarding the energy efficiency are transport and building sector. Based on a recent report published in 2015, the amount of renewable energy in Slovakia in 2013 was 1160.1 ktoe, +19.4 ktoe (+1.7%) compared to 2012. The 2012 share of renewable energy in Slovakia amounted to 10.4%, and 9.8% in 2013. At EU level, by way of comparison, the amount of renewable energy in 2013 was 196,761 ktoe, +9,863 ktoe (+5.28%) compared to 2012. The 2012 share of renewable energy in the EU amounted to 14.4%, and 15.2% in 2013.

Under the EU Directive 2009/28/EC, Slovakia is committed to the legally binding 2020 renewable energy and GHG cuts,

which aim to achieve a 14% share of energy generated from renewable sources in gross final energy consumption by 2020.

In the wake of international and national commitments, the Ministry of the Environment of the Slovak Republic introduced the Operational Programme Quality of Natural Environment (OPQNE) providing the fundamental regulatory and financial framework. The priority is set towards the transition to the energy-efficient low-carbon economy in all sectors. The Green Homes programme ('Zelená Domácnostiam') falls under the OPQNE reflecting the specific objectives set in the investment priorities to support the production and distribution of energy from renewable sources.

The programme aims to raise awareness about green energy solutions in households, and at the same time, to stimulate the uptake of small RES (Renewable Energy Sources) installations (photovoltaic panels, solar collectors, biomass boilers, heat pumps) through incentives, in the form of vouchers, that cover up to 50% of overall costs. To date, approximately 9,700 vouchers have been awarded for a total value of EUR 21.6 million. For the third and final year of the Green Homes programme, EUR 13 million is available out of the overall budget of EUR 45 million. The implementation process is managed by the Slovak Innovation and Energy Agency (SIEA), a professional state subsidy organisation. This programme has started in December 2015 and it is planned to run for three years until December 2018.

The programme attracted a very high number of applications, demonstrating strong demand from households. Each open call exhausted its available budget (+10%) within 10-15 minutes of its opening to the public. The rapid exhaustion of funding is frustrating for unsuccessful applicants, as the whole application process depends on quickly completing the online application form. Stakeholders welcome the programme but have also highlighted a number of areas for improvement, including late payments, lack of transparency, and issues related to the timing and length of open calls.

1

General description

'Green Homes' is a national programme designed to encourage and increase the installation of renewable energy systems in apartment buildings and family houses. It is based on a provision of the investment subsidies (covering up to 50% of costs) to households, used for purchase and installation. The focus lies in the uptake of small installations with a total capacity of 55 MW, replacing the energy that would be otherwise produced by fossil fuels.

The Slovak Innovation and Energy Agency (SIEA) is managing the implementation process under the supervision of the Ministry of the Environment. The duration of the programme is 3 years, starting in December 2015, with an allocation of EUR 45 million earmarked from the national budget and the European Regional Development Fund (ERDF).

The funds are allocated in form of vouchers through regular time-limited open calls. Online applications for subsidies have to be submitted prior to the implementation of the supported measures, however, after the consultation with the suppliers for a specifically chosen product. The installation can be concluded only by professionally qualified persons, authorized contractors fulfilling the required conditions, who signed a contract with SIEA. These contractors underwent a certification training for the installation of the RES systems. The list of authorised contractors is available on the Green Homes website (920 authorised contractors) and the registration is constantly open to new

contractors. After the completion, the voucher is paid straight to the contractor, rather than household. The voucher must be used within the specific period of the issued vouchers, which is usually 3 months, however, in specific circumstances it can be 6 months. The eligible applicants are homeowners (both individuals and legal entities) of family houses and apartment houses.

Specific conditions apply for each open call, in particular, the type of small installations for the use of RES, the eligible territory and other specific conditions pertaining to the individual rounds. Regarding the power generation, (photovoltaic panels) only devices up to 10 kW are eligible, while for the heat generation, it is a device that covers the energy needs of a building used by physical persons for housing. After the first year, the project was modified to adapt to real needs of households; e.g. shorter but regular open calls with a different budget.

The eligible RES systems are:

- Photovoltaic panels (electricity generation);
- Solar collectors (heat production);
- Biomass boilers (heat production);
- Heat pumps (heat production).

An exhaustive list of authorised installations (3,163 specific production type of equipment) is available on the SIEA website all together with a description of main features for each solution.

2

Achieved or expected results

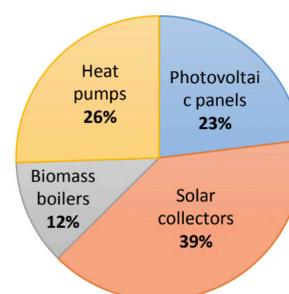
As the programme is still running, only limited results are available. The overall evaluation will be carried out at the end of the project, December 2018. 'Green Homes' expect to install more than 14,000 renewable energy systems by the end of 2018.

In 2015, 11% of Slovakia's energy consumption came from alternative resources. The expectation is to increase the share to 18% by 2018.

To date, there have been 17 open calls which have awarded approximately 9,700 vouchers, representing a value of EUR 21.6 million, even though, since the launch of the project, 14,130 vouchers have been issued amounting to over EUR 31 million. Out of them, approximately one quarter has not been used. In the first rounds, this number was as high as 40%, however, it dropped to approximately 20% in the course of the second year. Within the main reasons are applications without serious interest (especially at the beginning of the programme), insufficient awareness of the advantages, disadvantages and suitability of each option, rather late consultations with contractors resulting in a change of chosen devices, which would be more suitable, and exceeding the validity for implementation of the voucher. Many households applied without proper preparation, which blocked the access to the resources for others.

Figure 1 illustrates the shares of specific type of RES installations on a total number of vouchers. The numbers indicate that heat pumps are becoming a preferred choice as they are more comfortable in terms of operation. Additionally, the operational costs are lower, resulting in a suitable choice for newly constructed and renovated family houses. On the same time biomass boilers are mainly used in family houses with a higher consumption (old houses without a significant renovation), in areas with an easy access to biomass fuel or no gasification available.

Figure 1: Share of RES installations, November 2017



Source: SIEA

A detailed overview of open calls and vouchers for different types of RES installations is presented in Table 1. During the first year, there were five open calls with general focus (all RES installations), while during the second year, 12 calls were opened allocating smaller budget to RES installations for the production of electricity or heat generation. The self-governing region of Bratislava is exempted as different rules apply to this region. Taking into consideration an immense interest based on a large number of applications, the high number of unused vouchers (40% in the first year), represented a bottleneck and slowed down the implementation process. In order to overcome this problem, the SIEA has scheduled more frequent open calls for the second year supporting either electricity or heat generation systems (overview of the open calls presented in Table 1 below). The higher number of open calls also helped to ensure that the blocked resources in form of unused vouchers could be quickly reused and redistributed in upcoming open calls. Following the implemented changes, the number of unused vouchers during the second year dropped to 20%. Furthermore, a specific focus of open calls naturally divided applicants into two groups. Thus, households interested in photovoltaic panels for electricity generation do not compete with households interested in heat generation RES systems, which also ensured the proportional distributions of funds to different types of RES systems for electricity and heat generation.

Table 1: Overview of the open calls

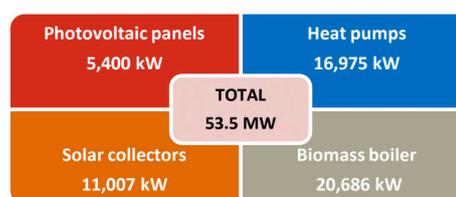
	Notes	Vouchers Issued	Budget allocated (EUR)
1	472 solar collectors, 307 heat pumps, 100 biomass boilers, 574 photovoltaic panels	1,453	3,250,000
2	1316 solar collectors, 540 heat pumps, 231 biomass boilers, 1129 photovoltaic panels	3,216	7,000,000
3	744 solar collectors, 717 heat pumps, 263 biomass boilers, 100 photovoltaic panels	1,824	4,000,000
4	152 in Bratislava Region	782	2,500,000
5	1145 solar collectors, 568 heat pumps, 289 biomass boilers	2,002	4,000,000
6	509 solar collectors, 312 heat pumps, 171 biomass boilers	992	2,000,000
7	Photovoltaic panels	339	1,000,000
8	418 solar collectors, 206 heat pumps, 143 biomass boilers	767	1,500,000
9	Photovoltaic panels	306	900,000
10	244 solar collectors, 241 heat pumps, 5 biomass boilers	490	1,200,000
11	324 solar collectors, 146 heat pumps, 91 biomass boilers	561	1,100,000
12	324 solar collectors, 146 heat pumps, 89 biomass boilers	559	1,100,000
13	Photovoltaic panels	316	900,000
14	250 solar collectors, 182 heat pumps, 93 biomass boilers	525	1,100,000
15	467 solar collectors, 318 heat pumps, 232 biomass boilers	1,017	2,000,000
16	Photovoltaic panels	328	950,000
17	217 heat pumps, 136 biomass boilers	616	1,250,000

Source: GSE, Thermal Account Rules, March 2013

For the third, and final, year of the project, the remaining EUR 12 million is still available for regions except the self-governing region of Bratislava from the total budget of EUR 45 million. Two open calls for photovoltaic panels are planned in early 2018. For the self-governing region of Bratislava, EUR 720,000 is planned for the third year, which will be dedicated to the installation of heat generation facilities.

Regarding one of the main objectives, to reduce CO2 emissions, so far, RES installations obtained within the Green House programme contributed to the drop of carbon dioxide emissions by 17,081 tonnes (calculated on a basis of performance of specific products installed in the households). Based on the recent results, the figure below indicates a performance of different options using RES categorised by type.

Figure 2: Performance of installed RES



Source: SIEA, 2017

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Perspectives and lessons learned

From a **government perspective**, this programme is the first initiative in Slovakia that has allocated European funds directly to households, via the implementing body, SIEA. High demand from households demonstrates the success of Green Homes. After the first year, the open calls system was slightly modified in order to ensure more effective budget deployment. A higher number of open calls, with a different budget for the specific type of RES installations, speeded up the control and reimbursement of issued vouchers, and after all, increased the total number of installed devices. Moreover, intensified communication led to the fact that the number of unused vouchers has fallen. The list of authorised contractors has also been significantly extended since the beginning of the programme, from 200 in December 2015 to 920 in November 2017. The Chief Executive of SIEA admits that due to high interest and remaining funds within the Operational Programme, the continuation of the project is being prepared.

One advantage of the programme is that the application process is relatively easy and does not impose too much of an administrative burden on households. However, that advantage has also led to a disadvantage, because it encouraged many people to apply without properly researching, evaluating and reaching a firm decision on the type and specifics of the renovation for which they would apply the vouchers. As a result, many vouchers were unused during their validity period, because their recipients had not managed to decide on or carry out the work in time. The key disadvantage that this has created is that many applicants, who may have been much better prepared to carry out renovation works, were unable to receive vouchers because they had already been allocated, in many cases to recipients that did not end up using them.

From an **industry perspective**, several providers of alternative energy sources appreciate efforts towards promotion of RES, but argue that under the current circumstances, the programme works in favour of lobby groups, increasing their market share. A project manager at the Slovak Association of Renewable Energy (SKREA) says that although the programme is trying to increase the share of RES in the Slovakian energy market, as well as to create jobs and support the sector, too much state intervention may hinder the progress of industry towards self-sufficiency. Once the new technologies overcome the initial obstacles, the subsidies should be stopped, as any viable model for energy generation must be politically, economically and environmentally independent.

According to the Managing Director of Biomasa, an association promoting the potential of biomass in Slovakia, people are more interested in RES because the state subsidies make them profitable, rather than for environmental reasons. Small biomass providers do not possess enough resources to execute big projects or are side-lined by the government. In addition, he believes it is an example of a poorly-timed project, as the Slovakia is failing to meet the RES utilisation goals on time. According to the Slovak Association of Photovoltaic Industries and RES (SAPI), a further limitation was related to the lengthy, slow initiation process to train and register authorised contractors and products took the projects to be supported, and to process the payment of two years before the programme officially started. Moreover, the late payment (reimbursement of the vouchers to contractors) caused existential problems to some of the small contractors.

Contractors would appreciate a continuous application system, which would allow the continuity of the installation rather than peak seasons, especially focusing on warmer months, as now most of the work is done during winter. Possibility to change the chosen type of installation, if not available on the market at the time, would be appreciated both by contractors and households. Furthermore, the process of connecting new into the distribution system differs from one distributor to another, often representing an administrative burden and overall slowing down the process of installation as well as increasing the costs. The programme significantly improved its transparency and effectivity after the first year, but there is still room for further enhancements.

From the **perspective of the programme's beneficiaries** (households), there has been huge interest in the initiative. Over 1,000 households applied during the first open call within the first 24 hours after the call opened. Data from open calls shows that the maximum amount of applications is usually exceeded within 10 minutes of the opening of the calls, which makes the whole process very stressful. The first year indicated that a high proportion of the vouchers issued were not actually used after all. As a result, the SIEA published detailed step by step application guidelines and planned more open calls with a lower budget, which enabled them to speed up the re-allocation of funds from unused vouchers.

An EU funds expert stresses the uniqueness of the project as it distributes the European funds directly to households. He also adds that transparency is provided by the fact that conditions, as well as open calls, are published in advance.

Endnotes

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