

# ***GREEN INVESTMENT SCHEME: DO SAVINGS DELIVER?***

Michaela Valentová, Czech Technical University in Prague, +420 603 209 535, michaela.valentova@fel.cvut.cz  
Jiří Karásek, Czech Technical University in Prague, jiri.karasek@fsv.cvut.cz  
Jaroslav Knápek, Czech Technical University in Prague, knapek@fel.cvut.cz

## **Overview**

The Green Investment Scheme (GIS) is a powerful tool to reduce greenhouse gas (GHG) emissions. The states in the GIS are obliged to invest the funds gained through the sale of Assigned Amount Units (AAUs) in GHG emission saving and environmental protection programmes. In the Czech Republic, the GIS has taken the form of the Green Savings programme which ran from 2009 to 2013 and supported energy efficiency and RES measures in residential buildings.

The paper evaluates the outcomes of the Green Savings programme. Specifically, it analyses to what extent the expected energy savings from the subsidized projects turned into actual energy and emission reductions. It does so through evaluation of ex post inspections which took place towards the end of the programme. The inspections were initiated by the administration body of the programme, the State Environmental Fund and were a condition set by the buying parties of AAUs.

## **Methods**

In 2012, the State Environmental Fund launched the verification procedures. During this process, total of 209 inspections were carried out to verify the achieved energy and emission savings. Total of 125 projects were controlled, including combinations of several energy efficiency measures. In the end, verification of CO<sub>2</sub> emission reduction was possible for 80 projects. For the rest, the data needed for verification were not available. For each project, the verified energy and emission savings were compared with ex post data derived from energy invoices. Furthermore, the controls included inspecting the implementation of energy efficiency and RES measures and other relevant facts that may have influenced the final energy consumption in the inspected object.

## **Results**

The data show the main factors influencing the actual GHG emission savings resulting from the energy efficiency and renewable energy measures. The main influencing factors, revealed in preliminary analysis, are: change in thermal comfort of the residents, different type of usage of the building, quality of the implementation of the measures, and to some extent also methods of calculation of the savings. The upcoming thorough analysis will reveal more details and specify the main factors having impact on the actual GHG savings as well as suggest implications for further policy setting.

## **Conclusions**

Significant amount of financing has been available under the Green Investment Scheme in the Czech Republic. However, careful evaluation of the supported projects is needed in order to optimize the programmes as to the cost/benefit ratio. The results of the ex post inspections serve to further understanding of the factors influencing the actual GHG savings.