

The Green Investment Scheme in the Czech Republic – Green Savings Programme

by Michaela Valentová*

As a result of the process of economic transition since the early 1990s, the Czech Republic has been able to stay below its Kyoto Protocol assigned amount of GHGs. This surplus can be traded with other industrialised countries. The revenues of such trades are spent domestically on energy saving programmes. This article describes how this has been organised.

Introduction

During the 1990s in the former Czechoslovakia and, as of 1993, in the Czech Republic a transformation process took place. Among the achievements was the closure of several heavy industry plants. This has resulted in a strong reduction in the emissions of GHG so that the Czech Republic is presently well ahead of its target in the Kyoto Protocol.

Under this protocol, the Czech Republic has a commitment to reduce its GHG emissions by 8% below 1990 levels (before the start of the transformation process). Presently, however, the country's GHG emissions are 24% lower than in 1990. As commitments in the Kyoto Protocol are defined as tradable assigned amounts (i.e. the Czech assigned amount during the Kyoto Protocol's commitment period 2008-2012 is 92% of the 1990 GHG emissions), the Czech Republic can sell a surplus of 16%-points to other Annex I countries. This has been defined in the Kyoto Protocol as International Emission Trading (IET).

Presently, the size of the IET market is close to 100 million assigned amount units (AAUs; one AAU is 1 tonne CO₂-eq.). While the Kyoto Protocol does not define specific conditions for IET, in practice it has often taken the shape of so-called Green Investment Schemes (GIS). Under GIS, the sale of assigned amount units is bound by rules so that the money received for excess AAUs is spent in a 'green' way, e.g., on energy efficiency programmes or development and transfer of low emission technologies.

GIS in the Czech Republic

In the Czech Republic, GIS transaction must directly lead to a GHG emission reduction in the country and money obtained through the sale of AAUs has to be spent by 2012. The accompanying amount of

GHG emission reduction must be proven within the 15 years of the 'greening effort' under the GIS transaction. The AAUs sold are traded during the Kyoto Protocol commitment period of 2008-2012.¹ The definition of rules for GIS transactions, and thus the quality of such GHG emission reduction programmes, can differ strongly across countries.

The higher so called "greening" (i.e. the stronger the money from the GIS transaction is related to GHG emission reduction activities), the higher the chance that a country receives a higher price for the AAUs sold. This has become a very important aspect in the light of the most recent negotiations that the Czech Republic has held on GIS with Austria and Spain.

After months of negotiations, the first contract on AAU sale was signed between the Czech Republic and Japan in March 2009. A total amount of 40 million AAUs was sold under this contract. The negotiated price per AAU is not public.

After the negotiations with Japan, the Czech Republic launched the programme Green Savings. This programme is targeted at households and supports energy saving measures and use of renewable energy sources in apartment buildings, as well as in houses (see below).

In September 2009, a second contract was signed with Japan (company Mitsui & Co) and two weeks later, another two contracts were signed: one with Austria for the sale of 3.5 million AAUs and the second one with Spain to which the Czech Republic sold 5 million AAUs. The two sets of agreements were based on the Green Savings programme, thus proving the importance of preparing a good implementing programme. Currently, further negotiations are being held with, e.g., the World Bank and Switzerland, but also further sales to Japanese companies are being negotiated.

Thus far, the sale of Czech AAUs to other industrialised countries has resulted in a revenue to be spent under the Green Savings programme of

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¹ The accounting date, however, is only in the mid 2014.

25 billion CZK (appr. EUR 960 million). How the money will be spent is described further below.

Green Savings Programme

The Czech *Green Savings* programme was launched in April 2009. It focuses on supporting renewable energy technologies in heating installations, as well as on investments in energy saving measures in reconstruction of existing building and in new buildings.

It is basically the first financial programme targeted at households (the other main financial sources, such as the *Operational programmes for Structural Funds*, are aimed at municipalities or enterprises). Given the amount of financial sources, it is also the first programme, under which the applicants are basically entitled to the subsidy, as long as they fulfill the eligibility criteria.

The programme supports quality insulation of houses and apartment buildings, the replacement of environment unfriendly heating for low-emission biomass-fired boilers and efficient heat pumps, installations of these sources in new low-energy buildings, as well as construction of new houses in the passive energy standard.

The *Green Savings* support has been set up so that the funds from AAUs can be used throughout the period from the programme's launch until 31 December 2012. Applications for subsidies will therefore be admitted until 30 June 2012 or until the programme funds have been fully used.

A subsidy may be requested from the *Green Savings* programme before or after implementing the measure, but support of measures completed before the programme's launch cannot be granted.

Basic Programme Structure

The programme is divided into three basic subsidy areas:

1. Energy savings in heating (under which complex or partial insulation is supported);
2. Construction in the passive energy standard; and
3. Use of renewable energy sources for heating and hot water preparation (under which the replacement of environmentally unfriendly heating with low-emission biomass-fired sources and efficient heat pumps, installation of low-emission biomass-fired sources and efficient heat pumps in new buildings and installation of solar-thermal collectors is supported).

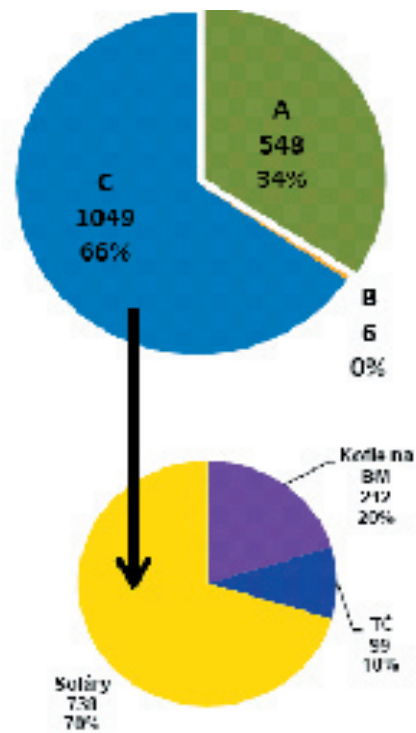


Figure 1. Structure (number and % share) of applications according to the type of measure

Source: Ministry of the Environment of the Czech Republic

Note: Green= insulation, blue= heating and hot water preparation, yellow= solar panels, violet = biomass boilers, dark blue = heat pumps

Furthermore, some combinations of measures are eligible for a subsidy bonus and also the project elaboration was refunded at the beginning of the programme.

Figure 1 shows the division of subsidy requests under the *Green Savings* programme across the various measures thus far.

Who is eligible for the subsidy?

Applicants eligible for the subsidy are owners and builders of houses and apartment buildings, namely:

- Natural persons (the subsidized measure is only intended for households),
- Associations of apartment owners,
- Housing cooperatives,
- Cities, towns and municipalities (including municipal districts),
- Business entities, and/or
- other legal entities.

First results

At the end of November 2009, more than 1800 applications had been received by the managing

Table 1 Savings from the projects

Type of house	Heat savings (insulation)	Heat production from RES	CO ₂ savings tonnes/15 years
	GWh/15 years	GWh/15 years	
Single family	111.2	97.1	174 128
Apartment	55.2	3.8	22 408
Total	166.4	100.9	196 536

Source: Ministry of the Environment of the Czech Republic

authority of the *Green Savings* programme. The total value of the processed applications (appr. 1600) amounts to over 245 million CZK (appr. 9.8 million EUR).

As shown in Table 1, most savings so far have accrued in single family houses. This is probably because applying for a subsidy for retrofitting a single family house is much easier than for a multiple-dwelling house. Consequently, 96% of applications have come from single family houses.

In total, the projects implemented under the *Green Savings* programme so far, will contribute to an CO₂ emission reduction of almost 200,000 tonnes during the 15 years of the lifetime of the measures.

As is shown in Table 2, the average payback time of projects is approximately 11 to 12 years. The exception is the use of renewable energy sources for apartment buildings where the payback period can be 27 years. The average cost of the measures per 1 GJ saved ranges between 360 and 430 CZK (appr. 14 to 16 EUR), with the exception again of RES in apartment buildings, where the average cost exceeds 900 CZK (almost 35 EUR per GJ).

Partnership – Green Savings for Energy Efficient Appliances

As a sub-programme of the main *Green Savings* programme, an information campaign promoting energy efficient appliances will be launched in spring 2010. Appliances are responsible for up to 50% of household energy consumption² and therefore it is more than rational, once the households undergo major energy efficiency measures, to also advise them on energy efficient appliances.

The criteria as well as the exact list of appliances under this *Partnership programme* are still under discussion.³ The programme is not connected to any financial subsidy to the households. However, all the producers and other stakeholders have been addressed and are taking part in discussing the concrete form of the sub-programme.

courtesy: <http://www.uspornespotrebice.cz>

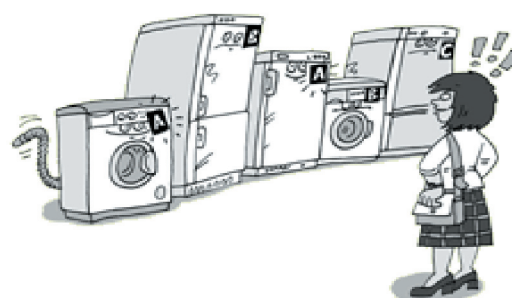


Table 2. Economic indicators of the projects

Type of house	Costs per unit of energy saved in insulation measures and low-emission heat production		Payback period for insulation measures and low-emission heat production	
	CZK/(GJ, 15 years)		years	
	Insulation	Renewables	Insulation	Renewables
Single family	420,4	368,6	12,6	11,1
Apartment building	430,9	900,4	12,9	27,0
Total	423,9	388,9	12,7	11,7

Source: Ministry of the Environment of the Czech Republic

² Ruzicka, P. Partnership – Green Savings, available at http://www.uspornespotrebice.cz/sites/spotrebice.drupal.cz/files/3_R%C5%AF%C5%BEi%C4%8Dka_MZP.pdf

³ SEVEN serves as one of the main advisors to the Ministry of the Environment on how to set the criteria, profiting from its long experience in promoting energy efficient appliances.