



## Romania at a glance

Romania joined the European Union on 1 January 2007. The country began the transition from communism in 1989 with a largely outdated industrial base and a pattern of output unsuited to the country's needs. The country emerged in 2000 from a punishing three-year recession thanks to strong demand in EU export markets. Domestic consumption and investment have fuelled strong GDP growth in recent years, but have led to large current account imbalances.

Romania's macroeconomic gains have only recently started to spur creation of a middle class and address Romania's widespread poverty. Inflation increased in 2007-08, driven in part by strong consumer demand and high wage growth, rising energy costs, a nationwide drought affecting food prices, and a relaxation of fiscal discipline, but fell in 2009 as a result of the world recession. Romania's GDP growth contracted markedly in the last quarter of 2008 as the country began to feel the effects of a global downturn in financial markets and trade, and GDP fell more than 7% in 2009, and unemployment nearly doubled. Romania intends to adopt the euro by 2014.

## Romania and the Carbon Market

Romania became party to the Kyoto Protocol in January 1999. The country has at present six Track 1 projects. Romania has been part of the EU's scheme for carbon



Romania is located between Serbia, Hungary and Moldova in Eastern Europe.

trading since 2009 and will follow the the vision of some EU member states to reduce carbon emissions by 30 per cent by 2020, compared to the 1990 level, if the rest of the world also sets ambitious targets.

Romania's emitters include power plants, metal products manufacturers, plastics producers and landfills. Many of these are state owned facilities and / or public private partnership connected to the public and local authorities.

Romania's carbon market has been in operation for over a year and local stock exchanges and Romania's state-owned power market operator (Opcom) are wising up to the opportunities of building platforms for trade. Opcom intends to set up a new platform as early as this year, while the Bucharest Stock Exchange (BSE) has also expressed interest in opening a facility for trading Carbon Dioxide (CO<sub>2</sub>) emissions credits. Opcom intends to launch a simple trading platform for companies to auction off their carbon credits in a tailor-made system for the local market.

The Sibiu-based electronic exchange Sibex has a platform for brokers to buy and sell carbon credits. Sibex's system allows the trade by brokers and financial institutions, who are registered in the National Securities Commission (CNVM).

Sources: *The World Fact Book and The Diplomat*

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## Danish State and Romania are pioneering JI

The cooperation between Denmark and Romania on environmental improvements started many years ago and it has been, it is and it should continue to be very successful in the future. The Danish Government and the Romanian Government signed a Memorandum of Understanding back in 2003 and this was followed by the implementation of one of the very first JI Projects “Sawdust 2000”.

A very successful JI cooperation started with the implementation of the “Sawdust 2000” JI Project (2003 – 2004) and it has been continued with the “Geothermal energy in Oradea – Area II and Beius” JI Project (commissioned in January 2005) followed by the “Boiler efficiency improvement at Holboca CET II Iasi” JI Project and “Energy efficiency improvement of the District Heating System in Drobeta Turnu-Severin” JI Project, both up and running since the cold winter of 2006 – 2007.

DEA is very proud to be in the group of the “early movers” of one of the flexible mechanisms of the Kyoto Protocol: Joint Implementation. The cooperation between the Danish Representatives and the Romanian Authorities has had a substantial contribution to the development of the JI concept especially in Eastern Europe.

In order to facilitate further activities the “Romanian National Procedure for Track 1 JI Projects” was enacted in 2008.

All the Danish JI projects implemented in Romania included a strong Danish export component like Danish equipment delivered for the construction.

The Joint Implementation concept was the driver for the dissemination of the Danish know-how in Romania all these years.

## Substantial JI Activity today between the Danish State and Romania.

The activities related to the Danish projects in Romania prove that the JI concept works and it is very effective. The implementation and operation of the Danish JI projects in Romania have been subject of the determination and periodical verifications performed by Accredited Independent Entities (AIE’s) like Det Norske Veritas (DNV) and TÜV SÜD.

Until today on the UNFCCC website four Danish JI Projects are registered under Track I by the Romanian Focal Point out of a total of 6 registered Projects.

DEA is very happy to mention that the JI Projects generated emission reductions which have already been transferred from the Romanian Registry to DEA’s account in the Danish Registry. To prove the efficiency of the Danish-Romanian JI cooperation more than 0,4 mio. credits are already transferred in the Danish Registry. Very soon more ERU’s generated by the Danish-Romanian JI Projects will be transferred to the DEA’s carbon account.

There is a huge opportunity for “GHG reducing activities” in Romania. The Romanian CO<sub>2</sub> market has a significant potential for the years to come. It is important to suggest to the Danish investors and equipment suppliers to investigate opportunities on the Romanian market whether the focus is on Programmatic JI, other projects forms or the other possible projects that could be part of a future post 2012 regime.

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## Run-down district heating improved in Drobeta Turnu-Severin, Romania

A JI project in Drobeta Turnu-Severin in Romania has provided a reliable heating supply and has a positive impact on the city's environment. The Danish Energy Agency has reaped valuable experience from this project, which can pave the way for many, similar projects in Eastern Europe.

### The Idea

Along the banks of the Danube and the border to Serbia, lies the city of Drobeta Turnu-Severin, an urban sprawl of three villages with a total of almost 110,000 inhabitants, situated around the remains of an old Roman fortress in south-western Romania.

Here, as in so many other places in Romania and former Eastern-Block countries, district heating used to be 'a right', and the large and now antiquated district heating systems still exist today.

In Drobeta Turnu-Severin, the district heating system was built between 1969 and 1981, and has since then only been poorly maintained. Necessary repairs and energy-efficiency changes have not been accorded

### **i** Drobeta Turnu-Severin in brief

- Upgrades a system with poor fuel-efficiency and reduces the loss of hot water by 90%
- Reduces carbon emissions by 366,606 tonnes of CO<sub>2</sub> equivalents over a period of seven years
- Provides the people of the city with more reliable and cheaper district heating
- Inspires improvements in other district heating systems in Eastern Europe
- Provides training for employees, as well as pride in delivering a good product
- Provides local jobs during repair and expansion of the district heating system

much priority since the fall of the Berlin Wall.

With this JI project, Denmark is supporting to ensure reliable heating supply in this old fortress town, as well as substantial greenhouse gas emission reductions from the energy production.

### The Project

The technical efforts of the project focus on two elements. First, heat exchangers in the substations are being made more efficient, and second, old, leaky pipes



New improvement makes the district heating system in Drobeta Turnu-Severin more efficient.



in the distribution system are being replaced.

Replacing the pipes is a large construction project, which during the one year implementation phase of the project created new jobs for the city.

Installing new well-insulated pipes reduces heat loss and thus the amount of fossil fuel needed to supply the same amount of heat to consumers. And adding more efficient heat and power production through the use of new technology, makes for a substantially more efficient system.

Previously, the production provided only 20%-30% of the heat and power that could potentially be generated from the fossil fuels, and the overall distribution system was less than 80% efficient.

### Everyday Benefits

The improvements have created more jobs for the city, but also brought other benefits. A new and more reliable district heating system means a considerably smaller risk of supply failure during winter when security of heating supply is vital.

This means better living conditions for the people.



This JI project ensures reliable heating supply in the town of Drobeta Turnu-Severin.

Moreover, this also means the system has more credibility and more people are signing up for district heating, avoiding the use of less climate friendly types of heating.

Another positive feature about the project is the knowledge and education transfers which are a big gain to the employees, partners and subcontractors of the Drobeta Turnu-Sevein district heating company.

But most of all, the project process and the subsequent monitoring have led to better working routines.

### Future Prospects

The project is producing credits over a seven-year period, but the technology can function for at least 20 years of operation.

There are still many old district heating systems in Romania and the former East Block. These hold a potential for investment in improvements to help the climate. The JI project in Drobeta-Turnu Severin is a clear inspiration for new projects.

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