
The Energy Sector in Serbia

Total EU assistance on energy
in Serbia since 1999:
€450 million

August 2007

An adequate and reliable energy supply is the cornerstone of any modern society. However, Serbia's energy sector was in dire straits in 2000 following years of failed economic policies, sanctions and conflict.

Now seven years on, and thanks not least to more than €450 million of EU assistance, things are very different. Serbia has a reliable and stable energy supply: power stations have been overhauled, coal production increased, pollution reduced and transmission networks repaired. And fundamental reforms of the sector are also underway, together with major environmental improvements, and the first steps in establishing a regional energy market in which Serbia has the potential to be a major player.

But there is no room for complacency. Demand for electricity is rising in Serbia, and throughout the region. In the past, electricity prices had been kept artificially low to maintain support for the regime. This stoked up demand for electricity, led to its inefficient use, and damaged the environment. It also meant there was insufficient income to cover the cost of generating and distributing the electricity, maintaining the equipment and training the staff. Difficult and sometimes painful decisions had to be taken.

Older power stations will have to be replaced as they reach the end of their lifespan. Studies financed by the EU, through the Agency, have already played a part in stimulating some important investments, and further major investments are needed. Attracting investors will be crucial.



Bajina Basta hydro-electric power station

The story so far

After the victory of the democratic forces in Serbia in 2000, the government initiated major economic and political reforms. But they could not take root without an adequate and reliable energy supply. So the EU, as one of the leading donors, agreed to provide substantial assistance to help Serbia address the needs of its energy sector.

It was not just a question of returning the electricity system to pre conflict and pre sanctions levels. Demand for electricity was rising following the lifting of sanctions, and electricity was being used very inefficiently. The Serbian electricity utility, EPS, had many competent engineers and technicians. But fundamental reforms were necessary in the way in which the energy system was structured, managed and financed.

So far the Agency has, on behalf of the EU, supported Serbia's energy sector with projects totalling €450 million. This has had a major impact leading to record outputs from the power stations, significant reductions in pollution, and a much more reliable and stable power supply system.

The main results

- Power cuts reduced from 52 days in 2000-2001 to zero by 2002
- Record outputs of power rising by 4% every year since 2003
- 110 km of power lines replaced
- Coal production up by 11% to 2.7 million tonnes
- District heating systems being modernised in five major cities reducing pollution
- Studies paving the way for loans of €67 million for the development of the Tamnava West lignite coal mine
- Promoting energy saving and setting up the Serbian Energy Efficiency Agency
- Air pollution from Kostolac power station reduced by over 90%

- The initial phase involved financing emergency fuel supplies and energy imports so that key institutions such as schools and hospitals could function. It included the 'Energy for Democracy' programme.
- This was followed by a reconstruction phase involving the overhaul of key power stations and coal mines (including the reduction of pollution) and the rehabilitation of power networks.
- The Serbian Government, in partnership with the EU, is tackling fundamental reforms of the energy sector, environmental issues, regional integration and co-operation.
- EU support has also played a part in attracting new investments and to create the conditions to attract other investors in the sector.

Emergency assistance

Following democratic changes in autumn 2000 and with the winter fast approaching, the Agency, on behalf of the EU, implemented an emergency assistance package of €115 million. It incorporated a previous EU programme, 'Energy for Democracy', from the Milosevic era which had assisted opposition-run municipalities. Fuel and heating oil were imported to run power stations, municipal heating plants and provide heating for schools and hospitals. The EU also funded imports of electricity of nearly €70 million, amounting to some 75% of Serbia's import needs in 2000-02.

This initial emergency programme not only met the immediate needs of the population. It also gave the experts in EPS and the Agency, time to assess the priority reconstruction and investment needs in the energy sector.



Kostolac B power station

Reconstruction

Much of Serbia's energy system was in urgent need of spare parts and emergency repairs to power stations, coal mines and transmission networks. This alone required EU support of €110 million, which was managed by the Agency in close partnership with EPS.

There was also a need for more fundamental maintenance and overhaul. Identifying the priorities, and the sheer logistics of finding and purchasing the key spare parts and equipment was a daunting task. Over a third of Serbia's power generating capacity was more than 25 years old and many of the original manufactures had closed down or merged with other companies.

The Agency, in partnership with EPS, set about the task of drawing up technical specifications for tendering and implementing the work in both coal fired and hydro-electric power stations, coal mines and power networks. In all it involved over 300 contracts for works, supplies and services.

EPS was therefore able to increase electricity output by 15% between October 2001 and March 2002, a major step in helping to eliminate power cuts.

Longer term challenges

The Environment and Energy Efficiency

Serbia's coal fired power stations are a source of serious pollution. In 2003 EPS, with Agency assistance, launched a feasibility study to identify the worst areas of pollution, ranking them by impact and cost. The EU, through the Agency, allocated an initial budget of €35 million to clean up the worst offenders.

One of the targets was the Kostolac A power station which was showering the town and surrounding area with ash. In winter, local people would complain about black snow. The pollution was particularly bad for children leading to high rates of asthma and bronchitis. And the levels of acid rain had noticeable effects on the flora and fauna. Following a €5 million rebuilding of the dust filters, emissions have been reduced by over 90%, equal to more than 50 truckloads of ash every day. Now, emission levels are below those set for new power plants under EU regulations.

Cleaning up Serbia's energy sector is very much work in progress. In March this year the Agency, on behalf of the EU, provided €28 million to completely renew the boiler ash disposal system at Serbia's biggest power station, Nikola Tesla B. This will reduce pollution and greatly improve air and water quality.

However, addressing the most obvious environmental consequences of power generation is only part of the story. Making use of other sources of energy is also important. For example, Serbia is heavily dependent on electricity for domestic heating. The EU, through the Agency, is funding a €20 million overhaul and modernisation of the district heating networks in five Serbian cities thereby helping to reduce the demand for electricity and improving the environment and reducing pollution.

Serbia uses energy very inefficiently – in fact it uses five times the amount of energy to produce one unit of GDP compared to the EU average. The Agency has therefore funded energy saving demonstration projects and public awareness campaigns, as well as helping to set up the Serbian Energy Efficiency Agency.



Open cast coal mine

Implementing Reforms

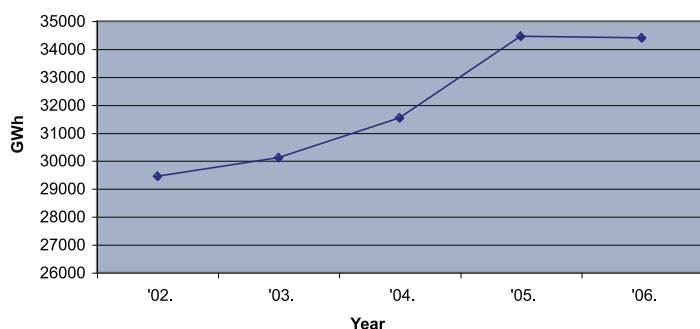
It is essential that far reaching institutional reforms go hand in hand with physical reconstruction and environmental protection.

The Serbian government, with the help of the Agency, also set up an Energy Regulatory Agency, and a separate electricity transmission systems and market operator, EMS. The Serbian Ministry of Mines and Energy has also received technical assistance to address the complex reforms it must implement. 'Twinning' agreements, using experts from Germany and Slovakia, have played an important part in this.

The price of electricity is also a key factor. With the support of the EU, the World Bank and others, the Serbian Government has taken the necessary but painful decisions to bring prices into line with the real cost of generating and distributing electricity.

These reforms have helped Serbia to begin to integrate into the regional energy market. The signature of the Energy Community Treaty for South East Europe in Athens in October 2005 marked an important

EPS Electricity Production 2002-2006



milestone in the process of creating this regional energy market, and has created the largest single market for gas and electricity in the world, covering all 27 member states of the EU, plus the seven contracting parties from South East Europe. The regional market will also benefit from the EU's support for the construction of a major power transmission line from Nis in Southern Serbia to Skopje in the former Yugoslav Republic of Macedonia. This will enable increased trade in electricity within the region, and with the EU.

These far reaching reforms and the development of the regional energy market are vital for mobilising future investments in the sector.

Mobilising Investment

The Serbian energy sector needs major capital investments to meet the demands of a growing economy. Ageing power stations have to be replaced, alternative energy sources developed, energy saving measures implemented and the distribution network maintained and expanded. Serbia also has the potential to be a significant player in the regional energy market, but transmission links with neighbouring countries need to be strengthened. Attracting international financial institutions and other investors with the appropriate financial muscle is crucial.

Preparatory work financed by the EU, through the Agency, has already helped to galvanise some much needed investments. The EBRD and Germany's development bank KfW, have provided finance for important environmental improvements. Both have also provided substantial loans for development of the Tamnava West open cast coal mine following Agency financed studies. And the Agency funded the preparation of the technical specifications to pave the way for a major EIB investment project in the electricity transmission network.



EPS workers installing equipment

What Next...?

The energy sector is a crucial factor in Serbia's economic recovery and expansion. Attracting investment is the biggest single challenge. It is essential that Serbia continues to implement its reforms and to play a leading part in developing the regional energy market. There is no simple formula for the next steps - no quick fix.

The Serbian energy sector has come a long way over the last seven years. Substantial EU assistance, managed by the Agency, has played a big part in that. It has shown what carefully targeted, timely and efficiently delivered assistance can achieve. Serbia has taken the first encouraging steps in what will be a much longer journey...



European Union

European Agency for Reconstruction

The European Agency for Reconstruction is responsible for the management of the main EU assistance programmes in the Republic of Serbia (including UN-administered Kosovo), the Republic of Montenegro and the former Yugoslav Republic of Macedonia

For more information about the Agency, see:

 www.ear.europa.eu

For the European Commission's Enlargement Directorate-General, see:

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