

## **FACT SHEET**

## EU SUPPORT TO THE ENERGY SECTOR IN SERBIA

Almost half of total electric energy in Serbia is produced in Obrenovac, some 30 kilometres from Belgrade. This means that half of all technical appliances in Serbia are charged with electricity produced in the **Nikola Tesla power plants (TENT)**.

Following a decade of underinvestment in power plant upgrades and maintenance, in early 2000s some thermal power plants were unable to meet EU and Serbian environmental legal requirements. Air pollution, poor water quality and waste problems posed serious threat to local public health. It is widely accepted that the lignite-fired power plants contribute to environmental and public health problems currently experienced within Serbia. According to the estimations done before reconstruction projects in TENT and Electric Power Industry of Serbia (EPS), each Serbian citizen, as electricity power consumer, produced in average five to ten kilograms of ash weekly. As a consequence of ash scattered all around in the vicinity, the rate of respiratory diseases was in a rise, especially among children.

In case of Obrenovac figures were even more serious, as TENT in Obrenovac has two units: TENT A and B which annually produce around 3.5 million tons of ash. The transport of ash and slag from TENT to landfill sites − over 4.5km away − would present a serious threat to the environment, especially for the 70,000 citizens of Obrenovac, if the EU did not invest €28 million in the construction of the new ash removal and transport system. The three years long Project *Ash Disposal System at Thermal Power Plant Nikola Testa B* prevented the ash from being blown by the wind at the 400 hectare dump site, and the amount of water for ash transport has been reduced ten times which has permanently stopped the pollution of ground water.

The previous ash transport and disposal system used a technology that mixes 10 parts of water to one part of ash, which resulted in serious environmental problems from the ash dump, with heavy metals from the ash leaching into both the tap water and the nearby River Sava, and fine particles of ash blowing over the town of Obrenovac and its surroundings. Both of these problems were addressed by the project, which resulted in a change in the ash handling and ash transport technology to a so called 'thick slurry' system using only one part of water to one part of ash.

"After complete reconstruction of filters in TENT A6, TENT B2 and TENT B1 that were implemented from 2010 to 2012 by donation from the European Union, emission of dust particles from thermo-block is drastically reduced and it is now lower than 50 milligrams per cubic meter. It is absolutely within the limits prescribed by the EU norms," says Milan Petkovic, TENT Deputy Director.

Apart from significantly better air quality in Obrenovac and its surroundings, the project for the modern transport of ash and slag prevented pollution of underground waters and springs as well as dis-balance in the eco-system throughout the area.

The total amount of EU funding in TENT since 2000 is around €200 million. With that assistance, the emission of solid particles into the air has been reduced six times, and the modernisation of facilities achieved a 4.2 million ton reduction in the use of coal, while annual production of electric power has increased by 400 MW, and energy efficiency by 12%.

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