

<b>Setting</b>	
Country	Slovak Republic
Location	Levice
Project start date	June 2006
Project end date	September 2007
Technology keywords	Advanced technologies, High temperature technologies, Combined heat & power, Heat recovery & storage, District Heating, Combined cycle
Host sector	Independent Energy Producer

### **Technical summary of the project**

Objective of the project	Improvement of energy safety and stability of power-grid, via implementation of new medium-range capacity source with quick ramp-up capabilities
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#### **Project description**

Levice Combined Cycle Power Plant (CCPP) 80MW was commissioned in September 2007 in Levice, Slovak republic. Owner of this plant is Slovintegra Energy, s.r.o. being a 100 % daughter company of the Slovakian international investment company Slovintegra, a.s. It was established as a new company mainly for the Levice power plant. Slovintegra Energy focuses on production, distribution and sales of electric energy for the energy system. It also produces, distributes and sells steam-based heat and hot water supplies for companies operating in the area of Levice Industrial Park, and distributes heat to the town of Levice. The activities also include supporting services in the form of primary, secondary and tertiary regulations of the output capacity and supplies of regulation electric power for Slovenska Elektrizacna Prenosova Sustava, a.s., a company in charge of transmitting electricity throughout the whole territory of Slovakia and ensuring electricity transmission from power plants to the distribution network and major customers connected to the 220 kV and 400 kV grids.

Configuration 2-2-1 of this plant is based on:

- two (2) gas turbine generators RB211-6761 Dry Low Emission (DLE) supplied by Rolls Royce, each with a capacity of 30 MW,
- two (2) Heat Recovery Steam Generators (HRSG) double-pressure, supplied by Adato s.r.o. and
- one (1) Condensing Steam Turbine Generator 20MW with air-cooled condenser,
- two (2) Internal Combustion Engines used as emergency power supply,
- Heat-exchange train,
- Auxiliary systems

The value of the contract signed by Rolls Royce was more than US\$20 million. Total investment costs were approximately 60 Mil. EUR, excl. VAT.

The project was developed by ADATO s.r.o., an engineering project management company based in Levice, with financing by the Slovintegra Group.

ADATO's order brings the number of RB211 gas turbines operating in Slovakia to seven. The country's gas company, SPP, operates five RB211s at compressor stations that pump gas along a pipeline running from Ukraine to Germany.

Levice industrial park has attracted a number of foreign investors, including companies from Austria, India, Germany, the Netherlands and Sweden. The park could create several hundred jobs in the town of Levice, South-West Slovakia, which has a population of approximately 37,000 people.

Electric power off-taker is power grid owned and operated by the West-Slovakia Energy System (Západoslovenská energetika)

Heat sales to Industrial Park Géňa in Levice and city of Levice in steam and hot water amount 580 TJ/yr.

Fuel gas supply to this CCPP is fed directly from Transit Pipeline, by-passing SPP (Main Slovak Gas Supplier).

The new CCPP created 56 new jobs, 30 of them Owner's internal staff and 26 external jobs.

Financing was covered with 33% with Slovintegra own equity funds and with 67% of debt covered by Citibank Slovakia as consortium leader.

Company Slovintegra is owned by individuals who previously owned company Slovnaft which they later sold to Hungarian crude-processing giant MOL.

This CCPP is second biggest of its kind in the Slovak Republic, the biggest being the Bratislava CCPP with capacity of 218MW, owned by Group Penta.

### *Environmental and social benefits*

(Estimate of) Greenhouse Gases abated (in metric tons of CO <sub>2</sub> -equivalent)	Annual: Up to and including 2012: 50,000 tCO <sub>2</sub> -equivalent Up to a period of 10 years: 50,000 tCO <sub>2</sub> -equivalent Up to a period of 15 years: 50,000 tCO <sub>2</sub> -equivalent
Number of reduction units (EAU, CER, ERU, AAU)	250,000 through 5-yr period of 2008-2012
Socio-economic aspects What social and economic effects can be attributed to the project and which would not have occurred in a comparable situation without that project?	This Project brings about replacement of equivalent power being generated from brown coal from mine Novaky. Power generation from brown coal has operation costs higher by 25 EUR/MWh. Costs difference is therefore = 5000 h/a x 80MWh x 25 EUR/MWh = 1,000,000 Eur/a.  Also, power generation from gas produces reduced by 50,000 tCO <sub>2</sub> per year less.
Methodology used	Approved baseline methodology

### *Economic data*

Capital costs	60 MEUR
Financing scheme	Own equity 33% and 67% debt covered by commercial bank
Financing organisation (if third party)	CityBank Slovakia

### *Project developer*

Name of the project developer	Slovintegra a.s.
E-mail and/or web address	www.slovintegra.sk
Contact person	Ing Kavec

### *Host organisation*

Name of Host organisation	Slovintegra a.s.
E-mail and/or web address	www.slovintegra.sk
Contact person	Ing Kavec

### *Technology provider*

Name of Technology provider	ADATO s.r.o.
E-mail and/or web address	www.adato.sk
Contact person	M.Gazo