Polimex Mostostal has concluded the execution of the largest investment in the Polish power sector after 1989 for its Client PGE

10/10/2019



The ceremony for the finalization of two ultra-modern power units 5 and 6 with a total capacity of 1,800 MW took place on 10 October at the Opole Power Plant, an entity of PGE Górnictwo i Energetyka Konwencjonalna. The investment, with a total value approaching PLN 11.6 billion, has promoted the Opole Power Plant to the global forefront of the most modern energy facilities. Moving forward the plant will supply 8% of the domestic electricity demand, bringing electric power to 4 million households.

On 30 September, as per the agreed schedule, Polimex Mostostal finalized one of the key investments of PGE – the construction of power units 5 and 6 for the Opole Power Plant. With the incorporation of cutting-edge technologies, the efficiency of electricity production in the new units is approximately 46%, which will translate into a significant reduction of the adverse effect of the plant on the natural environment. The units are low carbon facilities and they comply with the strictest environmental standards of the European Union. For each kilowatt-hour of electricity the Opole units will produce, there will be two to four times less emissions of sulphur and nitrogen oxides and the specific carbon dioxide emissions will decrease by approximately 25%.

The new power units in the Opole Power Plant will ultimately produce up to 12,5 TWh of electric energy annually, which will bolster the energy security of Poland. The investment has incorporated state-of-the-art technologies which have promoted Opole to the global forefront of the most modern power plants. The

investment is consistent with the broader strategy for the development of the Polish power sector that was outlined in the national energy policy plan until 2040 **– said Krzysztof Tchórzewski, the Minister of Energy.**

After the successful synchronization, units 5 and 6 underwent the process of technological systems regulation and their optimization. Before the handover of the units for operation, the units were optimized, there were acceptance tests, warranty measurements and a 30-day uninterrupted work trial.

This is a historical moment not only for PGE and for the Polish power sector, but also for the Polish economy in its entirety. Today we are officially finalizing the construction of power units 5 and 6 in the Opole Power Plant – the largest infrastructure investment in Poland since the political transformation of 1989. The new modern power units are already in operation and they fulfil the highest efficiency standards while respecting the natural environment. The units are an important component of the transformation of the Polish power sector that combines modern solutions for conventional energy production with the development of renewable energy sources. These two power units alone have the capacity to supply energy to 4 million households. – **said Henryk Baranowski, the President of PGE Polska Grupa Energetyczna.**

The extension of the Opole Power Plant has not only bolstered the position of PGE Group as the leader of the Polish power sector, but it has also served the country. As much as 70% of the value of the orders in the project went to the Polish companies and out of every PLN 1 spent in the project, 70 grosze remained in Poland. The investment created thousands of job. In the production peak we had up to 5,500 people on the construction site. The total number of man-hours on this project is 32 million – **added Norbert Grudzień, the Vice President and Director of Investment and Asset Management of PGE GiEK.**

The Opole mega-investment was carried out in the EPC formula (engineering, procurement, construction), which means that it was a turnkey project including design, delivery and construction of the power units. Each unit will operate within a monoblock system (one boiler with one turbine set). With a compact and modular design, the new units together with the accompanying infrastructure will occupy a relatively small area of about 45 ha. Next to the generating units there are two newly-built cooling towers with a height of 185.1 m each. The towers have the first few lines of the song “Karolinka went to Gogolin" inscribed on the walls to honour the Polish Song Festival in Opole. The new units will supply the heat for the next 35 years with the projected capacity factor at 8,000 hours/year. They were also adapted for the production of heat in cogeneration at the level of

300 MWt/h.

The investment, with a total value approaching PLN 11.6 billion, has been implemented by the consortium comprising of the following companies: Rafako, Polimex Mostostal, Mostostal Warsaw and GE Power who acted as the general designer, supplier of key equipment and the consortium attorney.

We are celebrating the finalization of the last stage of the expansion of the Opole Power Plant, which was formally concluded on 30 September. We are handing over to our Clients from PGE the two new power units with the impressive capacity of over 910 MW each. This means cleaner energy for the Opole region and for the whole country.

This undertaking is also an immense success of Mr Krzysztof Tchórzewski, the Minister of Energy. We are celebrating the finalization of this investment thanks to his support. Mr Tchórzewski has helped to bring the Polish companies and the Polish power sector up to the global level. We would like to thank the Minister of Energy for giving Polimex Mostostal this chance. – **summarized Krzysztof Figat, the President of the Management Board of Polimex Mostostal S.A.**

Investment full of challenges

The construction of the power units in Opole abounded with technical, design, logistic and coordination challenges. The complexity of the undertaking is best illustrated by the number of regulations and standards adopted in the construction process: the contractor executed the project in compliance with 2,400 legal regulations in force. The impressive scale of the project is also evident in the amount of steel structures and concrete: there were 65,000 tons of steel structures used in the construction process, which is comparable with the steel parameters for the construction of the Empire State Building; 250,000 tons of cement utilized in Opole would be sufficient to construct another Pentagon.

Overall there were 54,000 people involved In the full project cycle for the construction of the power units in Opole. There were almost 40,000 handovers including 29,000 construction handovers, 8,000 technological handovers and approximately 2,000 commissioning handovers. The complete as-built documentation is collected in almost 18,000 binders.

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