

# Chişinău CHP-1 Retrofitting by the Proces of Installing Gas Turbines

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**Abstract** - Equipped with outdated installations from the nineteen-fifties and nineteen-sixties, Chisinau CHP-1, operates with an electrical efficiency below 20%. However its decommissioning encounters several problems, related to the shortage of power generation in the republic, and to the difficulty of ensuring the thermal load during the summer time. A reasonable solution would be to disassemble the medium pressure boilers and replace them with gas turbine and recovery boilers installations, at the same time keeping the existing steam turbines and electrical equipment. Two gas turbines with 16 ... 38 MW capacity and 35 ... 40% electrical efficiency can be installed in the boiler's space. Recovery boilers would produce steam for the existing turbines increasing the electrical power by 10 ... 14% and the electrical efficiency up to 39 ... 45%. The CHP global efficiency could remain at the current share of up to 88%.

**Keywords**—CHP, efficiency; gas turbine; recovery boiler; fuel saving

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