## Letter of reference

For more than 10 years ZBP Inwat has carried out several research and design projects commissioned by Steam and Power Generating Plant EC-2. These projects involved thermal and flow tests of turbines as well as analysis of operating and technical conditions of machinery and design of systems necessary for repairs and modernizations. Projects completed by ZBP Inwat involve, among other things, the following:

- Thermal and flow tests of turbosets: TP-20 No 6, TC-25 No 4 in Heat and Power Generating Plant EC-2 Lodz, Stage I and II.
- Building design of RS station 12 t/hr (3.2/1.7 MPa, 350/250°C)
- Building design of RS station No. 3 100 t/hr (9.0/1.1 MPa, 500/200°C)
- Technical design of replacement of discharge water header from overflows and reheaters located at the level of +4.5 m around the boiler house.
- Technical design of replacement of steel tanks with expanders collecting water from drains of machinery in machine and boiler house (northern and southern side)
- Technical design of placing all safety valves in inlet elements of boiler reheaters Pauker No. 1 and 2 at Heat and Power Generating Plant EC-2 Lodz (110 bar, 510°C)
- Technical design of oil system replacement between an oil mill and oil tanks for particular turbosets at Heat and Power Generating Plant EC-2 Lodz
- Tests of shut-off valve housing for TZ-6 turbine at Heat and Power Generating Plant EC-2 Lodz
- Cylinder tests for No. 2 turbine (manufactured by Pierwsza Brnenska) at Heat and Power Generating Plant EC-2 Lodz

The following projects deserve particular recognition:

• Technical design of water heaters bundle from K-3 (Pauker) to flue gas ducts K-1 and K-2 at Heat and Power Generating Plant EC-2 Lodz

- Stress calculation and records for a diaphragm in IP section of No.1 turbine at Heat and Power Generating Plant EC-2 Lodz
- Executory designs for repair of reheater of boiler OP-140 No. 9 at Heat and Power Generating Plant EC-2 Lodz

The last-mentioned projects required significant design experience based on analytical and research work carried out beforehand. Novel solution were implemented for problems arising in the course of plant operation.

The staff of ZBP Inwat showed a lot of personal commitment during the implementation of above-mentioned projects. At numerous occasions, with their knowledge and experience, they helped us solve emerging problems.

All projects were completed in due time and the solution implemented as their result improved the plant operating comfort and increased the service continuity.

Taking into account our cooperation todate and our good knowledge of companies executing research and design projects we consider ZBP Inwat to be a highly professional company in its branch, deserving recommendation to other investors.