



MPEC

Municipal District Heating Company of Kraków

One of the most modern control rooms in the Polish heating industry

Relocation to a new headquarter building presented the ideal opportunity for Municipal District Heating Company of Kraków (MPEC) to implement an ambitious plan to create a state-of-the-art control room designed to streamline the work of operators and dispatchers. With 24/7 operation, reliability and the highest quality standards being key considerations, MPEC chose visual display products from Sharp/NEC.

MPEC S.A. is one of the leaders in the heating industry in Poland. The company, which was founded in 1953, is one of Kraków's key municipal companies and provides heat for over 65 percent of the city's residents. Heat from the city's network goes to residential areas, shopping centres, convention halls, offices, schools, hospitals and churches. The clean and safe energy supplied by MPEC S.A., in addition to central heating, is also used for other purposes, such as air conditioning, ventilation, or, for example, heating football pitches and swimming pools.

The Challenge

MPEC S.A.'s new control room monitors the district heating network, which is now 950 kilometers long. The main challenge was to best present and interpret the critical points of the district's heating system in Kraków and Skawina. The system had to analyse both archived and actual measurement data, enabling dispatchers to forecast heating water parameters most efficiently.

Another requirement was to respond effectively to emergency situations and disruptions in the operation of the district heating system, using programs to supervise the work of operating services and the district heating emergency service. The new control room was required to support decision-making as the operator optimised network switching, taking into account the requirements of both consumers and heat sources.

The Solution

At the heart of the new control room is a video wall consisting of 14 NEC large-format monitors in a 7x2 configuration. The video wall using NEC MultiSync® UN552VS industrial-grade thin-frame monitors is designed for 24/7 operation. On the dispatch table are eight 27-inch NEC MultiSync® EA272F professional desktop monitors providing accuracy and colour reproduction identical to the video wall. Management of the displayed data is streamlined by ATEN and Dexon Systems solutions, and all communication between the video wall, monitors, stations and work computers is provided by an independent high-speed Internet network.

For the first time at MPEC, the work of both the operator and the dispatcher is managed at a single workspace. This novel solution has improved communication between employees and, consequently, allows faster response to problems.

The state-of-the-art control room remotely monitors real-time processes and parameters at more than 1,500 facilities, such as district heating nodes and chambers, heat sources, pumping stations, container boiler plants and others.

Additional tools used in the dispatcher's work include the display of dynamic weather forecasts, a constant GPS view over operating services, and a powerful GIS database, which at any time gives access to required schematics, node data, the operation of the district heating network, and archived thermal images of the entire city.

Visualisation of these multiple data sources demands the highest quality visual interfaces, provided by the Sharp/NEC videowall and desktop array. Alongside this, conference rooms are equipped with 75-inch NEC MultiSync® V754Q monitors.



The entire project was carried out by Digitalia, an experienced Sharp/NEC Authorised Partner.

“For such an ambitious and demanding project as the construction of a brand new control room for Municipal District Heating Company of Kraków, we needed proven solutions of the highest quality, that are designed for continuous operation and are characterised by high reliability. In fact, I immediately thought of Sharp/NEC devices.”

“After discussing the needs and preparing the concept, it was time to present the technology. We were invited to the Sharp/NEC Inspiration Hub in Warsaw, where we were able to show the investor the latest technologies for large-format imaging. I am extremely proud that we have built one of the most modern control rooms in the heating industry in Poland, raising the standard and increasing the efficiency of our client's work.” said Marcin Mól, owner of Digitalia.



The Result

The state-of-the-art control room at MPEC has aroused a lot of interest as an example of best practice, attracting visitors from academia, local government and other heating companies both within Poland and beyond.

“We are proud of the end result. We managed to create a model dispatch centre for a municipal company, which has become an example for similar enterprises.”

“24/7 operation, reliability and the highest standards of video display in our control room were key considerations for our video wall and staff positions. We have achieved the planned goal: to streamline the work of operators and dispatchers through investment in modern technology,” said Paweł Piątek, Head of the Power Dispatch Department.

Site information

SECTOR

Public utility sector

CLIENT INSTALLATION

Miejskie Przedsiębiorstwo Energetyki Ciepłej S.A.
w Krakowie | www.mpec.krakow.pl

INSTALLATION PARTNER

Digitalia AV&Unified Communication Building
Automation | www.digitalia.pl

INSTALLATION DATE

June 2023

EQUIPMENT

- 14 pcs NEC MultiSync® UN552VS (7x2 video wall)
- 8 pcs NEC MultiSync® EA272F
Calibration allows colour reproduction identical to the main video wall.
- 2 pcs NEC MultiSync® V754Q
- All Sharp/NEC products operate under an extended 5-year warranty



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