About Mosenergo Heating and Pipeline
The Mosenergo Heating and Pipeline Network in Moscow, Russia distributes hot water to 99 percent of all the buildings in Moscow for heating.

ICONICS Software Deployed
The entire network has 12 regional dispatch centers and over ten heating plants, pump stations and local facilities that are monitored and controlled by ICONICS GENESIS32™ and ICONICS OPC Servers. The ICONICS Modbus Ethernet OPC Server and a custom OPC Server built with the ICONICS OPC ToolWorX™ toolkit are used to gather information from this 5,000-tag distributed application. The PLCs include DEP, TM120, Motorola MOSCAD and H&B Freelance 2000.

Key Features
The main challenge for this 24/7/365 application was to deliver thousands of real-time parameters to operators and for operator commands to be delivered back down to the PLCs in a few seconds. This is where the ICONICS OPC servers come into play. Using the standard ICONICS Modbus OPC Server and a custom OPC Server built by the ICONICS OPC ToolWorX toolkit, operators are able to monitor and control the entire system from one central command center.

Tip From the Customer
The GENESIS32 system from ICONICS gives Mosenergo Heating and Pipeline total control and supervision over all the plants and pipelines from one control room.

Project Summary
Mosenergo had previously tried to develop an in-house system to monitor and control the pipeline heating network. However, the ICONICS OPC-To-The-Core™ suite of solutions made this application a reality in just a few short months of integration. The system allows total supervisory control from one central command center and keeps Moscow warm. The power of ICONICS WebHMI™ also made an impact on the selection process. Other HMI/SCADA applications were considered before a final selection was made. After a rigorous selection process Mosenergo Heating and Pipeline selected GENESIS32 from ICONICS.
Benefits of the System
The built-in Alias feature in GENESIS32 allowed Mosenergo Heating and Pipeline to use one HMI screen or graphic file to feed over 50 different screens. The Global Search and Replace feature allowed the engineers to update hundreds of graphic files automatically. The VBA Scripting Engine in GENESIS32 also saved time, since many Mosenergo Heating and Pipeline engineers were familiar with this user-friendly scripting language.

Conclusion
ICONICS and Mosenergo Heating and Pipeline have worked closely to make this project a success. Mosenergo was able to quickly see the savings, and is able to react to potential problems in real time. Mosenergo participates in the ICONICS SupportWorX™ maintenance program to keep its software updated and for access to ICONICS technical support personnel as needed. Future expansion includes adding more clients as well as adding more Manufacturing Intelligence applications based on ICONICS’ BizViz™ suite.

Case Study Details
Key facts about Mosenergo Heating and Pipeline:

- Distributes hot water to 99 percent of all buildings in Moscow
- 12 regional dispatch centers
- 10 heating plants, pump stations and facilities monitored and controlled by ICONICS

Solutions Highlighted

- GENESIS32
  Web-Based HMI/SCADA Visualization
- OPC ToolWorX
  Rapid Development OPC toolkit