

KDHC and ABB co-operate for a happy energy world



Gangnam is a combined heating and power plant in Seoul, the second largest plant of KDHC, supplying 134 000 households with district heating. The demand is ever increasing.

KDHC, Korea District Heating Corporation, is a state owned company that was established in 1985. The mission is to create “a happy energy world”, by providing people with comfortable and convenient living conditions through energy conservation and environmental improvement. The second largest plant of KDHC is Gangnam in Seoul, supplying 134 000 households. The demand is ever increasing. In order to safeguard reliable function, the existing ABB control system was upgraded and extended.

EVOLUTION SCHEME	Workstations	Controllers	I/O Modules
Industrial IT	4 Process Portal	1 AC 800M	S800 I/O channels 800 channels
Advant	1 AdvaCommand for UNIX	1 Advant Controller 450	
Master	2 MasterView 850/1	2 MasterPiece 240/1 3 MasterPiece 280/1	S100 I/O, including cabling 2 900 channels

Upgrading Reused Outphased





Control room at KDHC, Gangnam.

Higher performance at competitive price

The existing control system from 1991 was growing close to its capacity limits. KDHC had worries that unexpected malfunction would happen during normal operation. It was especially important to replace the conventional and somewhat old Master-View operator stations with state-of-the-art operator workstations. To maintain reliable function and also to secure higher performance at cheaper price in the future, ABB recommended upgrading step by step as the best solution.

Good experiences and proven references

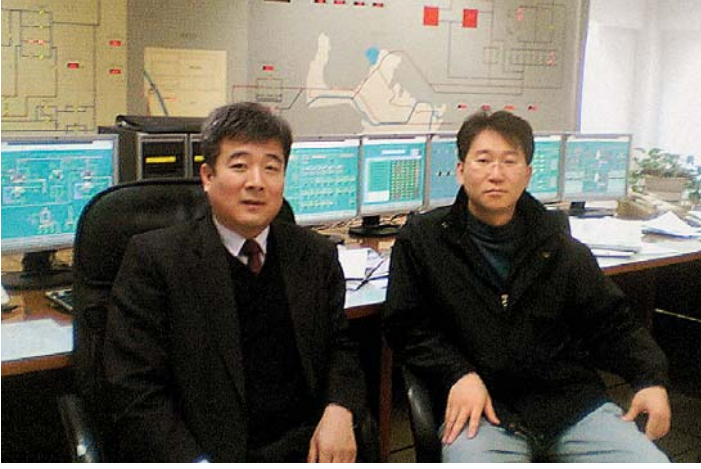
KDHC was founded 18 years ago by the Korean government, as a direct answer to the United Nations Framework Convention on Climate Change. The company takes its environmental responsibility deeply serious and is most concerned to operate well controlled, reliable, and highly energy-efficient processes. For the upgrading and extension of the Gangnam control systems, KDHC was looking for a supplier with good experiences and proven references.

Backward compatibility and investment protection

One of the most important factors for KDHC was to protect the existing investment by the reuse of controllers, application software and I/O units. The unique backward compatibility that ABB provides, whenever new releases are made, is highly appreciated by KDHC. The company has long experience of ABB control systems of different generations. In a coming upgrade the oldest controllers, MP 280/1, will be replaced by AC 450 or AC 800M.

“We have good experiences of ABB”

The installation at Gangnam was carried out in the summer of 2004. The overall progress went perfectly smoothly, with only minor problems. Mr. Jae-Kwang Kim, I&C engineer at Gangnam, is pleased with the way the project was carried out. He also appreciates how ABB solved the peer-to-peer communication between the existing MasterPiece controllers and the new AC 800M, which replaced an old conventional control panel for two of the boilers.



Mr Kang, ABB's salesman, and Mr. Jae-Kwang Kim, I&C engineer at Gangnam.



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The customer's viewpoint

"We have good experiences of ABB. The possibility to carry out the upgrading step-by-step minimizes the down-time and saves money."

"We are confident that the next step in the upgrading, when the oldest controllers will be replaced by new ones, will work as smoothly and successfully as this first step has done."

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ABB Process Automation

Vasteras, Sweden
Phone: +46 (0) 21 32 50 00
Fax: +46 (0) 21 13 78 45
www.abb.com/controlsystems
e-mail: processautomation@se.abb.com

ABB Process Automation

Wickliffe, Ohio, USA
Phone: +1 440 585 8500
Fax: +1 440 585 8756
www.abb.com/controlsystems
e-mail: industrialitsolutions@us.abb.com

ABB Process Automation

Mannheim, Germany
Phone: +49 (0) 1805 26 67 76
Fax: +49 (0) 1805 77 63 29
www.abb.de/controlsystems
e-mail: marketing.controlproducts@de.abb.com

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