Background
Heat exchangers that have experienced aging degradation, such as flow-accelerated corrosion (FAC), vibration-induced damage, and plugging, warrant replacement for recovery of their performance. Replacements may also be necessary for plant upratings or to increase the electric output of the plant. By working with experienced fabricators, Westinghouse provides a single point of contact for project management, engineering, and installation for feedwater heaters.

Benefits
Feedwater heater replacement helps reduce total maintenance costs and shutdown losses caused by heat exchanger operational issues. Westinghouse can supply both high- and low-pressure feedwater heaters. The heaters exhibit high reliability because of the emphasis on preventing tube stress corrosion cracking and flowinduced tube vibration. Westinghouse feedwater heaters achieve high performance by being designed for effective condensation, venting, stable level control, and prevention of drain flashing.

Description
Westinghouse has the capability to provide complete feedwater heater or tube bundle replacement.

Experience
Westinghouse combines the proven design and fabrication experience of our suppliers, including Toshiba, with over 40 years of experience in the nuclear industry. Since 1970, Toshiba has provided high- and low-pressure feedwater heaters for 15 nuclear power plants. Toshiba has performed 39 feedwater heater replacements for BWRs, including 36 complete set replacements and 3 tube bundle replacements using existing heater shells. Toshiba is currently fabricating two feedwater heaters for a PWR unit.