

CASE STUDY | RO Efficiency



CHALLENGE

A cellulose paper manufacturer was experiencing unusually high chemical, natural gas, and water consumption, along with shortened RO membrane life and recurring boiler tube failures.

Watertech's investigation revealed that the water softener was not operating properly. Because the customer had been using an incorrect hardness test method, the issue went undetected.

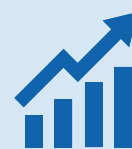
The resulting hard water reduced RO membrane life and caused scale buildup in the boiler. The scale decreased heat-transfer efficiency, increasing natural gas consumption and ultimately contributing to boiler tube failure. It also forced higher boiler blowdown rates, driving up water usage, and chemical costs.



SOLUTION

Watertech and the customer implemented the following solutions:

1. Recommended the correct test procedures and WTeService remote monitoring
2. Identified and fixed the water softener
3. Installed a new, larger RO system



RESULTS

REDUCED CHEMICAL USAGE

80%

EXTENDED MEMBRANE LIFE

From six months to 2-4 years

REDUCED WATER USAGE

40%

NATURAL GAS SAVINGS

\$43,000 annually



TOTAL SAVINGS

\$75K Annually

**More than a
water treatment solution.**

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