

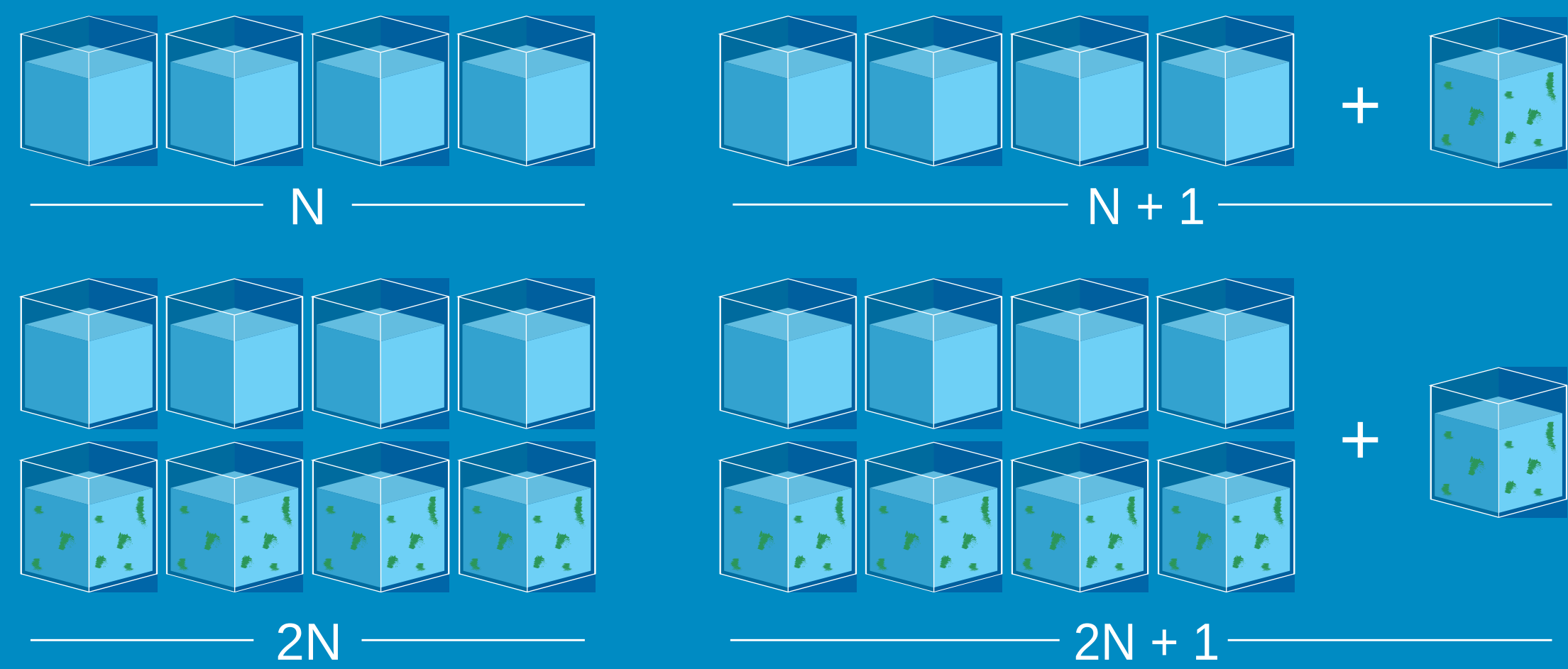
DATA CENTERS

CHALLENGES PROTECTING REDUNDANT COOLING WATER SYSTEMS

Redundant cooling systems are necessary to ensure the required uptime demanded by data center customers. However, when cooling systems are offline, the lack of circulation can pose hidden challenges for operational reliability. Routine circulation though offline cooling equipment is important for protecting these systems.

REDUNDANCY PROBLEMS

Water treatment extends the service life of HVAC systems by inhibiting corrosion, scale deposits, and microbiological growth. When backup systems are offline to conserve energy, they are not receiving continuous water treatment to address these issues.



IMPACTS ON WATER SYSTEMS

Low flow or stagnant conditions (dead legs) provide ideal conditions for severe waterside problems to develop in cooling water systems including corrosion, microbiological fouling, blockages, and reduced heat transfer. These problems increase operational and maintenance costs while reducing asset service life.

Pumping Costs



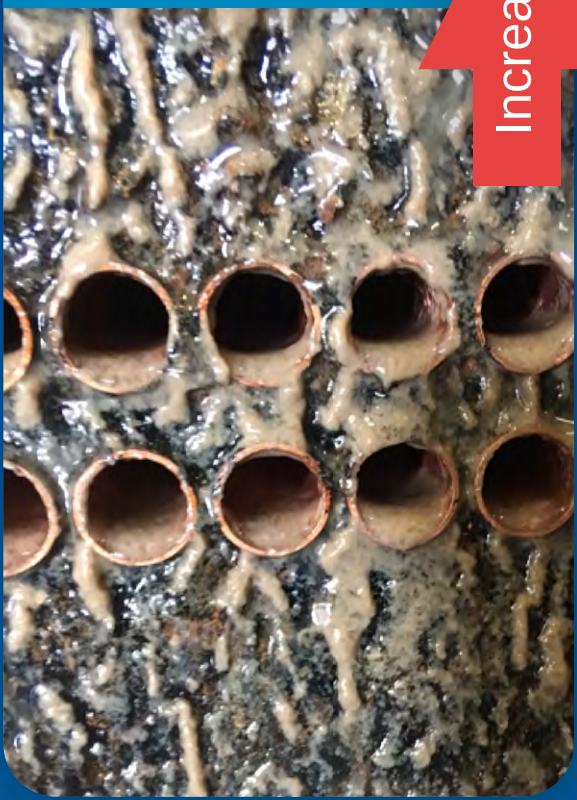
Decrease

Corrosion Rate



Increase

Fouling Rate



Increase

Operational and Maintenance Costs



Increase

FINDING THE RIGHT BALANCE

Effective water treatment to protect redundant cooling systems can be a balancing act between energy conservation versus the increased risk of severe equipment damage or even failure. The cost of routinely circulating water though offline, redundant equipment can be minimal compared to the potential for severe damage and system downtime. As water treatment professionals, Chem-Aqua can provide the tools and techniques necessary to make data-supported decisions for managing the risks associated with offline systems.

Contact Chem-Aqua today to discuss improvement opportunities.