

Terminal 4 Case Study Details



Before

- 9,600 tons of cooling.
- Towers needed extensive maintenance due to water hardness.
- Strong acids needed for acceptable performance.

Intervention

- Install MIOX and water softener to increase water reuse without damaging system.
- 6-8 week installation process.

Costs

- Approximately \$400,000 (including extensive repairs to old system).

Benefits

- 21 million gallons of water savings per year.
- Approximately \$140,000 savings per year in water and chemicals.
- Costs recovered in less than 3 years.

Cooling Tower Program

What Is A Cooling Tower?

Cooling towers are devices that remove heat from a building through evaporation. Nearly all large facilities in the Valley have cooling towers, but they consume substantial volumes of water. The City of Phoenix runs cooling tower checkups to help operators understand and improve their cooling system.

Why Target Water Reuse?

Cycles of concentration (COC) is a way of measuring how many times the water in the tower circulates. Increasing the COCs reduces how much water the tower uses.

What Are The Benefits?



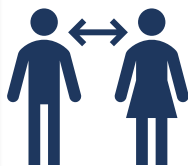
External Report

Get an outside perspective on your cooling system with results you can share.



Verified Savings

Quantify how much water is actually saved to go beyond corporate storytelling.



Useful Connections

We connect you with organizations that can support your cooling tower retrofit.



Drought

- Increased temperatures across the Colorado River Basin have resulted in the worst drought in 1,200 years.
- No signs of improved conditions in coming years.
- Federal government threatening to take unprecedented actions to reduce demands on the Colorado River.

Conservation Partners

- Many solutions are needed to solve this problem.
- Diverse sectors demand diverse solutions.
- Public-private partnerships activate private sector knowledge for community benefit.

Ideal Partners

- Large industrial water users.
- Public benefit industries.
- Located in areas experiencing shortage.

Cooling Tower Program

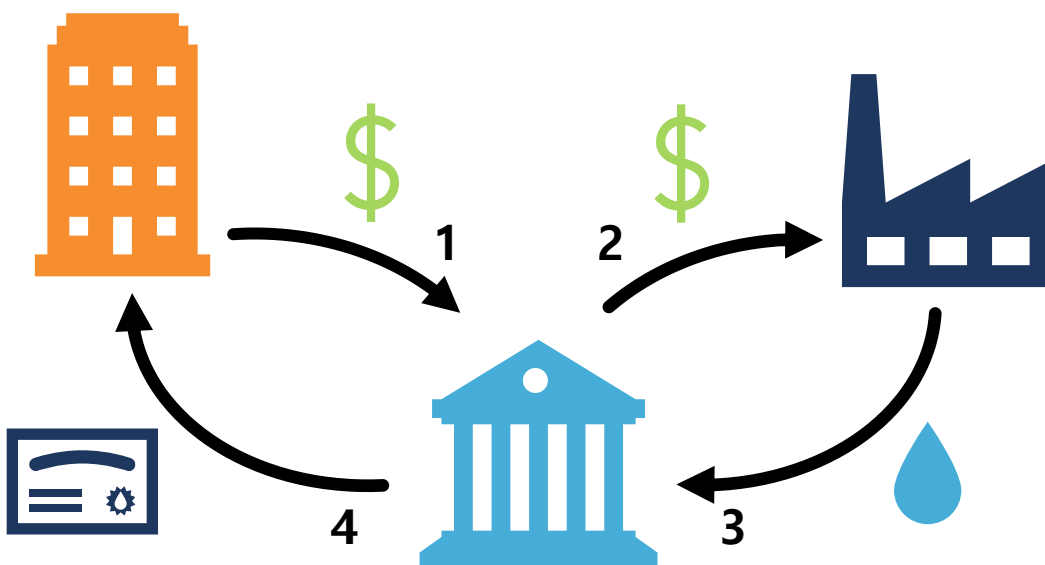
What Is The Audit Process?

- Onsite cooling tower assessment.
- Formal report with recommendations detailing potential retrofit support, including funding opportunities.
- Presentation with follow-up steps.

Who Are The Partners?

- BlueCommons, a Blue Bank project of the New Venture Fund. They offer funding for retrofits.
- Business for Water Stewardship, a verified water savings vendor. They help sell the Blue Bank's savings certificates.

How Does The Bank Work?



1. A funder gives the Blue Bank money for water-saving projects.
2. The Blue Bank advances this money to a site owner for retrofits.
3. The site's water savings are verified by the City, and the site repays the Blue Bank based on those savings.
4. The Blue Bank certifies that water was saved and gives the exclusive right to claim these savings to funders.