



Why Your District Energy Plant Pays More for Water Than It Should — and How to Fix It

Water Flow Innovations LLC

Flow Conditioning Device (FCD)
waterflowinnovations.com

Your chilled water plant, steam distribution, and cooling towers share one municipal supply — but your meter counts more than arrives. **Cooling tower makeup, chilled water demand shifts, and boiler feedwater events create the conditions for air, gas, and turbulence to form in the line at your meter — and you're billed for it.** The FCD (Flow Conditioning Device) corrects the measurement. Every distribution system and connected building stays the same. Your water bill drops — and so does your sewer bill, because sewer charges are calculated from the same inflated meter reading. One device. Two bills fixed.

WHY DISTRICT ENERGY PLANT WATER METERS OVER-READ

The Core Problem: District Energy Plants Serve the Largest Aggregate Demand of Any Single Municipal Supply Connection

A centralized plant supplying chilled water or steam to an entire campus or district draws more from one municipal meter than almost any other facility. Seasonal load swings create massive demand variation events that generate air, gas, and turbulence in the line at the meter. The FCD corrects that measurement without affecting distribution pressure, thermal capacity, or any connected building.

THE THREE OVER-READING SOURCES UNIQUE TO DISTRICT ENERGY PLANTS



Cooling Tower Makeup Cycling

Large cooling tower arrays cycling with aggregate campus load create the most sustained meter over-reading of any district energy source — running continuously at maximum demand throughout peak cooling season.



Chilled Water System Demand

Chilled water plant load variation with connected building demand creates high-velocity demand changes — generating air, gas, and turbulence at the supply meter on every significant load transition.



Steam Boiler Feedwater Makeup

Steam distribution system boiler feedwater makeup cycling with heating load creates variable high-volume demand — compounding cooling tower and chilled water over-reading throughout every heating season.



Your Water Intensity Per Ton-Hour of Thermal Output Is Better Than Your Meter Shows

IDEA benchmarks and LEED campus certification track water intensity per ton-hour of thermal energy delivered. When the supply meter over-reads, reported intensity is inflated across every connected building. After FCD installation, metered intake reflects true use — improving the accuracy of IDEA benchmarking, campus LEED water credits, and utility authority ESG reporting.

BEFORE & AFTER THE FCD

WITHOUT FCD

- ✗ Air, gas & turbulence billed as water volume
- ✗ Cooling tower cycling inflates meter all season
- ✗ Load swings compound over-reading daily
- ✗ Water intensity per ton-hour overstated
- ✗ Sewer charge tied to inflated meter



WITH FCD INSTALLED

- ✓ Metered volume reflects water actually delivered
- ✓ Cooling tower makeup reads accurately
- ✓ Load variation measured correctly
- ✓ True water intensity per ton-hour revealed
- ✓ Sewer charge based on real usage

5–30%

Average water & sewer bill reduction

46%

Highest documented single-site reduction

~1 Hour

Install time — water off about 1 hour

6-Mo

Money-back, no questions asked · install non-refundable

How the FCD Works — Four Steps

1

Installs between two pipe joints right after your water meter — water off about one hour

2

Creates a slight back-pressure that extends back through the meter, reducing air, gas, and turbulence

3

Delivers a laminar-like flow profile through the meter — the condition it was calibrated to read

4

Meter reads accurately. Bill drops. Chilled water capacity, steam distribution, cooling tower performance, and every connected building are effectively unchanged.

FREE SAVINGS ESTIMATE

Instant estimate — takes 30 seconds, no contact info required.

waterflowinnovations.com/water-bill-savings-calculator

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CERTIFICATIONS

IAPMO

NSF/ANSI/CAN 61

KIWA

GMP

SQF

316L Stainless Steel · Made in USA
Under 0.8 psi pressure loss
Lifetime Transferable Warranty