

Energy and Water Management

Managing through your energy water nexus

Eaton's Energy Solutions can improve your management of energy related to water – by reducing the embedded energy in the life cycle of water, and by conserving energy and water by reducing consumption of both.

Energy and water are inextricably linked from withdrawal to treatment to distribution, collection and reuse or discharge. While it takes energy to process and distribute water, it also takes significant amounts of water to produce energy.

By focusing on both energy and water, both suppliers and their users can perform interactively to meet current and proposed Regulatory Requirements.

Achieving the lowest practical supply and use for the purpose intended by way of the most efficient proven measures which reduce operational costs and increase customer / user satisfaction is water conservation at its core.

Eaton's Energy Solutions is the catalyst for your water conservation efforts and can help you:

- Obtain energy / water / wastewater savings
- Improve system performance
- Improve customer satisfaction / service
- Ensure adequate water service, even during droughts
- Meet federal, state, regional standards
- Upgrade and promote industry standards
- Reduce costs and GHGs
- Contribute to LEED



Powering Business Worldwide

We focus on two areas:

- The water supplier's operational costs manifested through energy, chemicals and water resources
- Customer / user commodity costs. This is made up of average day demands, peak demands and seasonal / production demands



Our water conservation program:

Energy is consumed in every step through pumping, transmission and treatment processes. By evaluating each step in the life cycle of water in your community Eaton will determine where inefficiencies lie and design cost efficient solutions to optimize the performance of your water systems.

- Quantify the amount of energy embedded in the water your customers use: energy intensity (EI)
- Determine the equivalent greenhouse gas reductions (GHG) related to efficient water use in your community
- Determine the savings and payback periods associated with the solutions that EMC has discovered

Our process will:

- Determine the energy intensity of your water — from source to discharge — and identify operational implications and opportunities
- Evaluate potential energy and water savings opportunities for your facilities and systems from source to discharge
- Identify and evaluate renewable energy opportunities
- Co-generation or combined heat and power (CHP) and estimate the potential carbon savings and financial benefits
- Retrofit existing systems for optimal performance or design and build new, more efficient facilities and systems
- Train O&M staff to sustain on-going system performance improvements by installing the latest technology

Our services are focused on these customer types:

- Facility manager with high energy costs, high (peaking) water demand, high water / wastewater costs
- Client committed to reducing energy / water costs (goals)
- Industrial customer trying to leverage demand side management utility programs
- Municipal supplier trying to meet permit mandates
- Water supplier with high peak demands, nearing capacity

Our process will ask and address these questions:

- Do you have energy / water / wastewater reduction goals and objectives?
- What is your annual energy / water / wastewater spending? Has your spending been increasing over time?
- How well is your system performing?
- Do you have peaking issues / revenue shortfalls?
- Are you facing capacity upgrades?
- How old is your system?
- Have any major renovations taken place? Are any planned?

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