SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

Energy Management Solutions

WATER & WASTEWATER

Powerful Solutions That Put You in Control

Ready to make your water or wastewater operation more energy and cost efficient? It's easier than you think. Start with simple, no-cost actions to instantly conserve energy, and then consider easy-to-implement equipment upgrades that will permanently reduce energy consumption. Take advantage of tools, tips, and financial savings — all customized with your industry in mind to help you save energy while creating a better environment.

Where your energy dollars are used.

Wastewater Electricity Use[1]

Aeration	60%
Solids Processing	22%
Wastewater Pumping	12%
Lighting and Buildings	6%

Water Electricity Use[1]

Distribution Pumping	67%
Raw Pumping	11%
Treatment	11%
In-plant Pumping	9%
Building Energy	2%

[1] E-Source Sector Snapshots 2008 (average industry numbers)

WATER & WASTEWATER

Make a Savings Plan

Water and wastewater treatment facilities account for over one-third of municipal energy use. According to the U.S. Environmental Protection Agency (EPA), energy savings of 15% are readily achievable in this sector. Knowing where you use energy can help you identify ways to reduce your use and overhead. We can help you make a plan. Start with an **Energy Audit** — an analysis of your current energy use to identify savings opportunities, customized to your needs. Our customers who implement Energy Audit recommendations typically benefit from reduced energy use and lower operating costs.

Eliminate Energy Guzzlers

Consider participating in our **Express Solutions** or **Customized Solutions** programs, developed with your industry in mind. Investments in more **efficient pumps** and new, energy-efficient equipment like **variable frequency drives**, along with infrastructure improvements, and green facility upgrades pay off in the long term — and many qualify for incentives right now.

Demand Response

Demand Response rewards you for reducing energy usage when demand for electricity is highest — typically the summer months — and when rates are highest, too. If your business has the flexibility to shift energy usage, you could plug into serious savings. We offer several Demand Response programs so that you can choose the best options based on your business needs.

Sign up for **Critical Peak Pricing** and get rewarded for voluntarily reducing electricity consumption during CPP "event" hours, when energy conservation during peak hours is most needed. Or, save with our **Commercial Summer Discount Plan** which automatically cycles your air conditioner units on and off during periods of peak demand, and allows you to only cycle a few units. If you can actively monitor and reduce your usage on hot summer days when prices peak, our **Real Time Pricing** program may benefit your business.

Want more control over when — and how much — you reduce your demand? With **Automated Demand Response**, you can reduce energy use with a click, so it's even easier for you to save both time and money.

Small Steps to Control Your Energy Expenses

When you use energy is as critical as how much you use. Just a few targeted equipment upgrades can really add up. And, many ways to save require little or no financial investment by your company.

Pump It Up

It requires a significant amount of energy to power a water pumping system. If any pump is not working to specifications, or if the pumping requirements have changed, it's possible the plant could be using power inefficiently. We offer free pump testing services that provide you with information so you can assess your overall pumping performance. Testing helps identify current or potential problems, allowing you to take measures, if needed, to improve operations and lower your energy cost.

Pump Systems Management

- Practice preventative maintenance on motor systems
- Install automatic shut-off devices to reduce peak demand
- Upgrade to **high-efficiency pumps**
- Install **pumps** and **irrigation systems** that use water and electricity efficiently, then manage and maintain the system equipment
- Install **variable frequency drives (VFDs)** to control the frequency of the electrical power supplied to your pumping systems. VFDs can help you achieve significant power savings

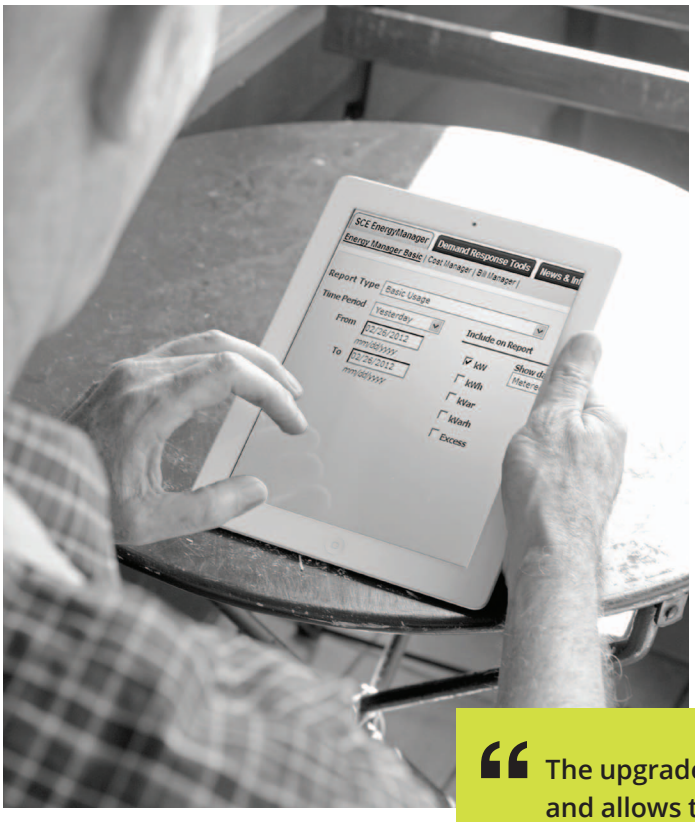
Power Down

- Prioritize pumping system operations to operate the lowest cost (per acre foot) first
- Reduce system pressures to save energy
- Replace and check mechanical valves with motor controls (soft start)
- Right size piping to reduce friction to lower system pressure control
- Adjust **variable-speed drive controls** for fans, pumps, and chillers
- Shut off all or most pumps during peak hours
- Leverage elevation by pumping water into a storage tank or a reservoir prior to peak hours
- Decrease use of aerators during peak hours
- Optimize system efficiency through smart **SCADA** controllers, **automatic shut-off devices**, premium efficient **motors**, **condensers**, **compressed air**, and **compressors**

Flip the Switch

- Turn off unnecessary lighting
- Install **occupancy sensors** in general usage areas so lights automatically turn off when unoccupied
- Replace T12 fluorescent lamps and magnetic ballasts with low watt **T8** or **T5** tubes
- Replace high-bay lighting with **High Intensity Discharge (HID)** lamps or high-bay fluorescent fixtures
- Replace incandescent or halogen lamps with **LED** lamps
- Install **photocells** or **time clocks** on outdoor lighting systems so they only operate from dusk to dawn

Power Tools for Long-Term Savings



Design to Save

Savings By Design encourages high-performance, non-residential building design and construction by providing financial incentives, detailed analysis, and design support.

Go Retro

Retrocommissioning (RCx) will help keep your existing equipment and systems operating efficiently. For water and wastewater treatment facilities, RCx generally focuses on motors and pump improvements.

Green, Clean Solutions

Embracing innovative energy sources, like solar and self-generation, can reduce your carbon footprint — and your energy bill.

> **"The upgrade of the SCADA system helps ensure ongoing reliability and allows the district to manage more equipment automatically. As a result, we entered into a third-party Demand Response Contract (Aggregator Managed Portfolio program), enabling more than one megawatt of load reduction when required and earning incentives in the process."**
>
> — Rich Nagel, West Basin Municipal Water District General Manager

MORE INFORMATION

To learn more about Energy Management Solutions and apply for incentives, visit **sce.com/water** or call your **SCE Account Manager**.

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