



Sustainable Solutions

- Integrate energy efficiency, water conservation, land use, recycling and renewables into existing communities and future community design and construction

Energy Efficiency (E/E)

- Comprehensive surveys and audits
- E/E Marketing Services
- E/E Implementation Services
- Program Design
- Benchmark Analysis
- Metering
- Partnering with Local Governments

Water Conservation

- Audits and surveys
- Analysis
- Engineering
- Working with local governments and water agencies

Information Technology Services

- Requirement Analysis
- Software Development, Support, and Maintenance
- Software and Hardware Procurement
- Outsourcing Solutions
- Web-based Solutions
- Data Centers

Data Centers

Southern California Edison Data Center Energy Efficiency Program—

Willdan Energy Solutions is implementing the 2008 Data Center Energy Efficiency Program (DCEEP) targeting hospitals, cities, financial organizations, IT organizations, and other commercial entities with high server loads. DCEEP is designed to generate substantial energy savings with the installation of virtualization software and consolidation of servers. Just started, the program has already identified over 100 servers that can be removed at two customer locations saving over 400,000 kWh in energy and over \$60,000 per year on electric bills.

Virtualization and Server Consolidation Program—Willdan Energy Solutions' Virtualization and Server Consolidation Program is helping to position virtualization software as an effective energy efficiency technology in Southern California Edison's service area. Virtual infrastructure software helps servers improve flexibility and operate smoother, which provides significant energy savings. The software allows for applications to be run on fewer physical servers, creating significant server consolidation, and reducing power and cooling requirements. Simply put, reduced servers result in no power and cooling requirements for those servers—hence the potential energy savings is significant. Given that data centers are used in hospitals, cities, financial organizations, IT organizations, and any other commercial entity with high server loads—the potential for the application of virtualization technology is significant.

Utilities

San Francisco Utility Commission, WaterSavers Program—Willdan Energy Solutions has been working for the San Francisco Public Utility Commission (SFPUC) as the implementer of the San Francisco WaterSavers program. The SFPUC Water Savers Program targets high consumption non-residential water customers such as hotels, large parks, and municipal facilities representing the upper 20 percent of the highest water users. The program provides incentives for the adoption of water saving technologies by these facilities. While designed to complement existing SFPUC incentive programs, Water Savers focuses more on involved measures such as cooling tower conductivity controls and laundry recycling. Water Savers also leverages associated energy saving opportunities to maximize customer financial incentives. Overall, the primary objective of Water Savers is to reduce SFPUC customer consumption through cost-effective water saving projects. The program exceeded its original goals, has been extended and has completed projects that have resulted in savings of almost 750-acre-feet of water.

Pacific Gas and Electric, Energy Watch Partnership—The Partnership is a third-party partnership program funded through the California Public Utilities Commission for the 2006–2008 program cycle. One of the primary objectives of the San Joaquin Energy Watch Partnership is to work with small businesses, residents, and city and county staff to build the infrastructure for future energy efficiency projects by raising the awareness, performing audits, and establishing the appropriate networks and relationships within the community.

This program includes:

- Training on energy efficiency to facility directors, small business owners and community members
- Complete energy audits
- Development and distribution of energy efficiency brochures
- Email campaigns
- Participation in city events
- Coordinating meetings and seminars for small businesses and contractors

Willdan has had two primary objectives since our inception in 1964—ensuring the success of our clients and enhancing our surrounding communities. Working steadily toward these goals we gained a notable reputation for technical excellence, cost effectiveness, and client responsiveness in providing superior engineering and planning consulting services. In recent years Willdan has expanded our service offerings into several vital areas including financial and economic analysis, homeland security, environmental remediation, and sustainability. We have crafted this set of integrated services so that, in the face of our evolving environment—whether economic, natural, or built—Willdan can continue to extend the reach and resources of our clients.

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Willdan Energy Solutions is ideally suited to play a critical role in the country's energy efficiency efforts. The company brings together over two decades of experience in the energy and information technology fields, offering innovative solutions to challenging resource problems.

Our clients now include public agencies and private companies from small businesses to large investor-owned utility companies to cities, counties, schools, and colleges. They appreciate our ability to provide strategic planning, efficient energy management and creative IT solutions that support operational goals and long-term growth.

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Facilities

San Gabriel Valley Local Government Partnership, Facility Upgrades—

The San Gabriel Valley Energy Efficiency Partnership is a comprehensive energy efficiency program for 30 cities in the San Gabriel Valley. The program will provide facility upgrades to the cities and local businesses; and information about energy efficiency measures and rebates to residents and businesses. We perform audits to find opportunities, provide recommendations, find vendors, assist them in selecting the vendor, find funding sources they may be able to utilize, and answer any other questions they might have. In addition to helping with retrofitting existing buildings, the Partnership also provides and directs cities with establishing LEED-certified new buildings as well as obtaining savings in water and gas measures.

Silicon Valley Power Facility Retro-Commissioning—

Willdan Energy Solutions has an extensive background in Cx and RCx work. For example, the recent Silicon Valley Power RCx program seeks to optimize major building systems, returning them to the original design specifications and adjusting various schedules and set points to match current facility usage. It specifically targets customers who have energy-intensive, industrial-style buildings. For commissioning, we use standard methods and equipment for measuring and analyzing system deficiencies and we use our expert understanding of HVAC, controls, and integrated systems to develop innovative approaches to RCx implementation. We are currently in the process of providing retro-commissioning services for three large companies for Silicon Valley Power, including Applied Materials, National Semiconductor and Hyatt Santa Clara.

University/College Campuses

Los Angeles Community College IDEEA Program—Willdan Energy Solutions implemented the 2004–2005 IDEEA—Community College Program. The program has completed over 100 percent of its goal within budget. It provided a variety of energy efficiency activities and equipment retrofits that created immediate energy and peak demand savings.

The retrofits included interior and exterior lighting, chiller upgrades and other HVAC-related energy efficiency improvements, energy management systems and upgrades, motor controls, and vending machine controls.

Laboratories/Medical Facilities

Healthcare Energy Efficiency Program—Willdan Energy Solutions has extensive experience in resource efficiency management. Through our large Healthcare Energy Efficiency Program, we advise and consult with clients on all phases of resource efficiency and use. In addition, for this program we have worked with the facilities, including laboratories, in providing information to residents, students, employees and the general public about energy efficiency retrofits, technologies and behaviors.

The primary activity of the Healthcare Energy Efficiency Program is providing comprehensive energy efficiency services. These services include:

- Comprehensive facility audits and analysis
- Energy efficiency design and recommendations
- Equipment installations
- Verification

The program includes lighting and HVAC upgrades, data center virtualization and equipment upgrades, and all relevant energy efficiency upgrades and retrofits.

