Our Smart, Sustainable Campus
Using Technology and Third Party Rating Systems
to Measure Sustainability

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“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

*Brundtland Commission 1987*
Leadership in Energy and Environmental Design

A leading-edge system for certifying the greenest performing buildings in the world
LEED ADDRESSES THE COMPLETE LIFECYCLE OF BUILDINGS

- Homes
- Neighborhood Development (in pilot)
- Commercial Interiors
- Core & Shell
- New Construction
- Schools, Healthcare, Retail
- Existing Buildings Operations & Maintenance

Building Lifecycle: Design, Construction, Operations
LEED Platinum Certified Student Housing, CSU Fullerton

LEED Gold Certified Student Recreation Center, CSU Fullerton
Location & Transportation
Alternative Transportation

![Image of a map with charge points marked on it]

- ChargePoint
- California State University Fullerton, North State College Boulevard, Fullerton, CA, United States

[Website link: https://na.chargepoint.com/charge_point]
Sustainable Sites
Light Pollution Reduction
Water Efficiency
Indoor Water Use Reduction
Outdoor Water Use Reduction
Cooling Tower Water Use

Andover Continuum
Energy and Atmosphere
Minimum Energy Performance
Demand Response

Andover Continuum

DemandSMART provides a real-time look into your energy consumption. During an event, if you’re not on track to hit your energy reduction goals, you’ll get a call from us to help coach you to success.

1. Customer is underperforming; EnerNOC places call to site
2. EnerNOC instructs customer to reduce according to its Energy Reduction Plan
3. Customer exceeds energy reduction goals
Current Time
4/14/2015 9:24:29 AM

Demand Reduction

Step #1
Select The Hour The Demand Reduction Is To Start

Step #2
Select The Minute The Power Company Asked Us To Start Demand Reduction Will Start 15 Minutes Before This Time

Step #3
Select The Number Of Hours It Is To Run

Step #4
Press The Easy Demand Reduction Button

Waiting For Start
Count Down Timer In Minutes to Demand Reduction Start

0

Important
If You Want The Demand Reduction to Turn Off, Set The Duration To "0"

Demand Reduction Program "CurrentLine" Is...
Renewable Energy
Advanced Energy Metering

PowerLogic® Power Monitoring Systems

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Control the cost, quality and reliability of your utilities
What is Power Monitoring?

1. Measuring energy flowing through the system helps you get control of your energy costs
   - Electrical power distribution system
   - Other utility costs

2. Monitoring power equipment assets helps maximize resources and assets (saves time and money)
   - Manage capital equipment expenses
   - Manage energy efficiency

3. Detecting power quality disturbances and the status of power system sources aids to ensure availability of supply to connected equipment
   - Provides data for critical decisions
   - Minimize power system downtime
PowerLogic® power monitoring systems

- CM4000T
- MicroLogic Trip Units
- SEPAM Protective Relay
- ION 7650
- PM850
- MotorLogic
- Altivar VFD

**Switchboards & MCC’s**
- kWh
- Amps
- PF
- Volts
- kVA
- K-Factor
- kVAHr
- Demand Logs
- kWA
- kVAHr

**Unit Substations**

**High Voltage Switchgear**
Transforms Data Into Useful Information

- Summary Reports
- Timely Information

- Load Planning Study
- Harmonic Analysis
- Historical Trending

- Alarms / Events
- Circuit Loading
- Phase Balancing

- Load Shedding
- Auto Transfer
- PF Correction

Management
Engineering
Maintenance
Automatic Controls

Utility Feeds
Generators
Substations
Chillers, CRAC, HVAC
Transfer Switches
Switchboards & MCC’s

Internet, intranet, telephone, serial or wireless networks

kWhr – Amps – PF – Volts – KW – KVA – KVAHr – Avg & Peak Demand - Harmonics
For Industrial, Commercial & Institutional Demand Side Energy Consumers
ALL meters measure energy, but various circuits will have different levels of information requirements.

The application determines the model of
Materials & Resources
Storage & Collection of Recyclables
Indoor Environmental Quality
Lighting Controls
Thermal Controls
Innovation
Smart Water Bottle Filling Stations
Waste Level Monitoring
Water & Building Dashboards
Battery Storage

Fullerton State Green Charge Networks Greenstation

Green Charge Networks is providing intelligent energy storage solutions to reduce peak demand charges with their sophisticated software algorithm and battery storage system. In addition, Green Charge Networks is aggregating locations to participate in Demand Response events to increase the savings.

Technology Type: Lithium-ion Battery
Rated Power in kW: 400
Duration at Rated Power (HH:MM): 1:00:00
Weblink: [http://www.greenchargenet.com](http://www.greenchargenet.com)
Building Certification
Building Recertification
Engagement
Welcome back, Titans! Check out the new eco-friendly carpet in the Pollak Library!

Made with recycled content fibers, replaced pieces will be recycled, low-VOCs meeting the Green Label Plus Certification, and weighs 40% less than traditional carpet tile making it more efficient to transport and easier to install.

To find out more about your new carpet and other EcoWorkx products, visit: http://www.shawcontractgroup.com/Html/EnvironmentalEcoworx ...

See More
Questions

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Thank You

We hope you enjoyed this session. Please help us to improve and turn in your survey.

Visit our vendor partners at the Exhibit Hall.