



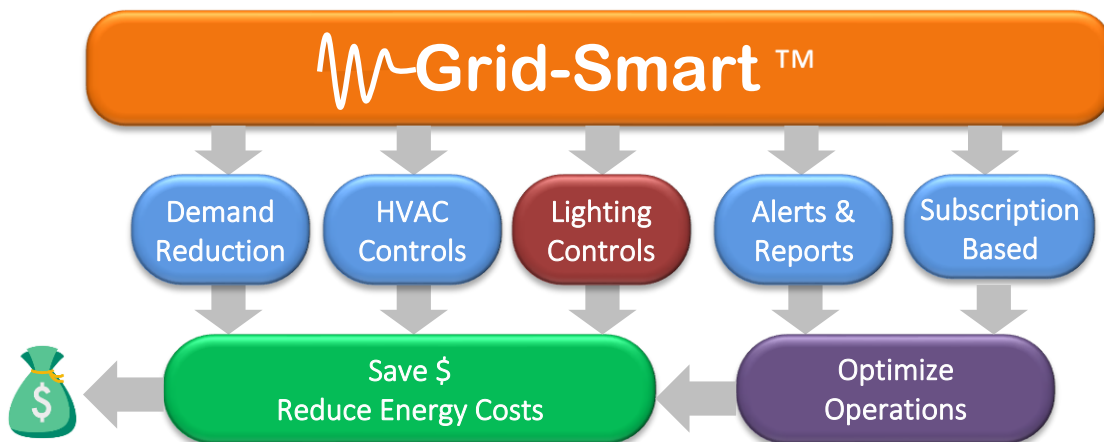
Energy Costs are Affecting Your Bottom Line

 **Grid-Smart™**

Network Lighting Controls (NLC)

- ✓ **Intelligent Energy Management**
 - HVAC Controls
 - Energy Conservation Measures (ECM)
 - Lighting Network Controls (LNC)
 - Demand Control and Monitoring
- ✓ **Unified Control with Grid-Smart**
 - Local Access
 - Remote Access
 - Optional Server
- ✓ **Energy Management System (EMS)**
 - Stand-Alone or Integrated
 - Graphics and Trend data
 - Scheduling

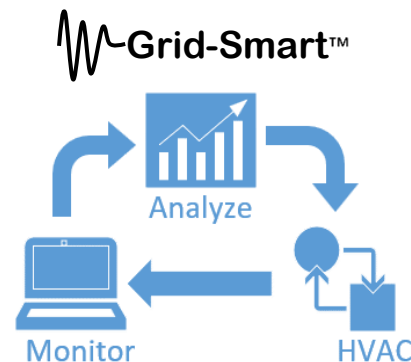
Our Approach for Energy Management



Grid-Smart™ is a comprehensive approach to energy management and control systems. This brochure highlights one specific subset: **Network Lighting Controls (NLC)**. It outlines a full range of NLC services designed to support and enhance your operations, while remaining flexible to your budget and schedule. The brochure begins with a brief introduction to the Grid-Smart™ platform, followed by a detailed discussion of the Grid-Smart™ NLC system¹.

Grid-Smart™ *Energy Management System (EMS)*

- Stand-Along Energy Management System (EMS)
- Reduce Electric Demand Charges
- Lighting Network Controls (LNC)
- Energy Conservation Measures (ECM)
- HVAC Controls and Optimization



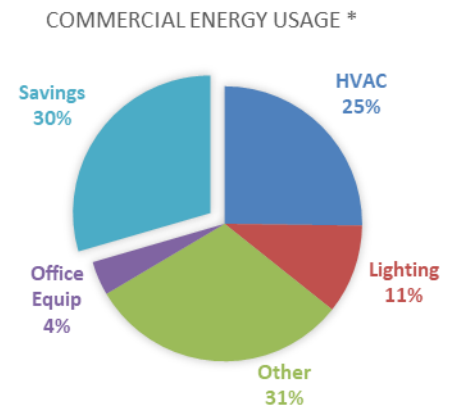
¹ Grid-Smart™ entails far more than Network Lighting Controls (NLC). For details on its energy solutions capabilities please see www.ecesddc.com for brochures and videos describing the full capabilities of Grid-Smart™

HVAC and Lighting Controls

Reduce energy costs by 30% to 40%

For many businesses today, operational costs can be as important as sales in determining the profitability for stakeholders. The most tangible effect of implementing HVAC and Lighting Network Controls also referred to under the umbrella term as Energy Conservation Measures (ECM) goes directly to the bottom line; reducing operational cost, increasing profit margins, and freeing up cash for other uses.

- Reduce energy costs by 30% to 40% and maintenance costs by 5% to 10%
- Reduce Carbon Tax Penalties
- Increase The Health and Performance for Your Team by Smart Ventilation



Energy Savings Measures (ECM)

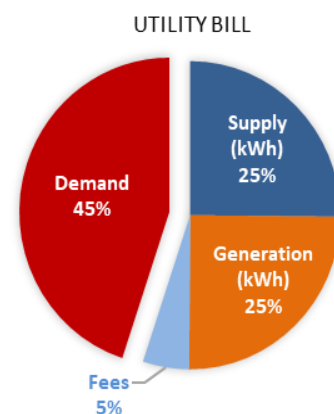
- Smart Thermostats for scheduling and optimal start-stop
- Speed Control for Fans, Compressors, and Pumps
- Demand Control Ventilation (condition only when spaces are occupied)
- LED Retrofits and Smart Occupancy Sensors
- RTU and Heat Pumps
- Boiler and Refrigeration Controls
- **Network Lighting Controls (NLC)**

Demand Reduction System

Demand accounts for 30-60% of the utility bill.

Grid-Smart™ makes it possible to monitor, identify and proactively *minimize demand charges*.

- Ignoring demand charges leaves money on the table
- Web Access, Graphics, Demand vs. Time-of-Day data, Scheduling, Alarms and Alarm History
- Load Shifting, Load Shedding and Demand Profiling



Integration of Energy-Controls

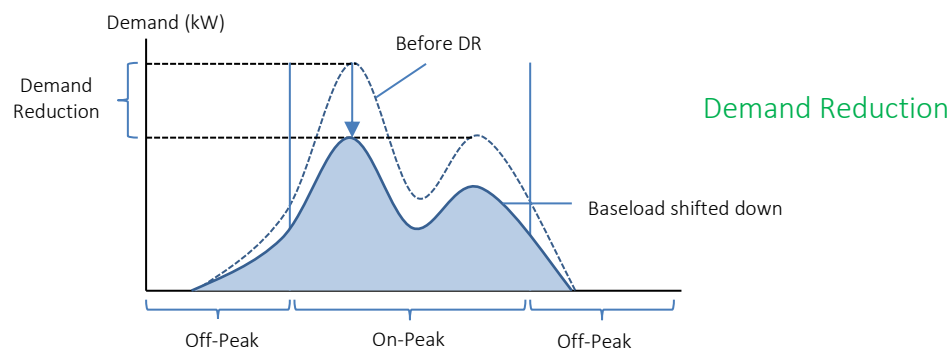
What sets **Grid-Smart™** apart from other systems is its ability to integrate multiple energy saving mechanisms

- Energy Conservation Measures (ECM)
- Network Lightings Controls (NLC) and
- Demand Reduction (DR) controls.

Typically, companies specialize in one of these three areas.

- With **Grid-Smart™** – you don't need three companies – we do it all

Using more efficient equipment reduces the baseload of energy used at all times, effectively shifting the entire demand curve downward.



Grid-Smart™ Controls Include:

- **Demand Control Ventilation (DCV)**
Demand-controlled ventilation (DCV) is a respond to the actual demand (need) for ventilation based on occupancy. This reduces the amount of outside air required to be conditioned thereby reducing energy consumption.
- **Speed Control and VFDs**
Adding Variable Frequency Drives (VFD) to fan or pump motors and employing speed control algorithms allow the fans or pumps to run at reduced speed under partial-load conditions, significantly reducing energy and demand.
- **Smart Thermostats and optimal start-stop setback**
Grid-Smart™ intelligently schedules cooling system, heating system and fans to optimally start and stop, minimizing energy usage
- **LED retrofits**
LED lighting retrofits typically result in a 60% to 75% improvement in the lighting energy efficiency. LEDs last 40 times longer than the average incandescent bulb reducing maintenance costs
- **Lighting Network Controls (NLC)**
- And more • • •

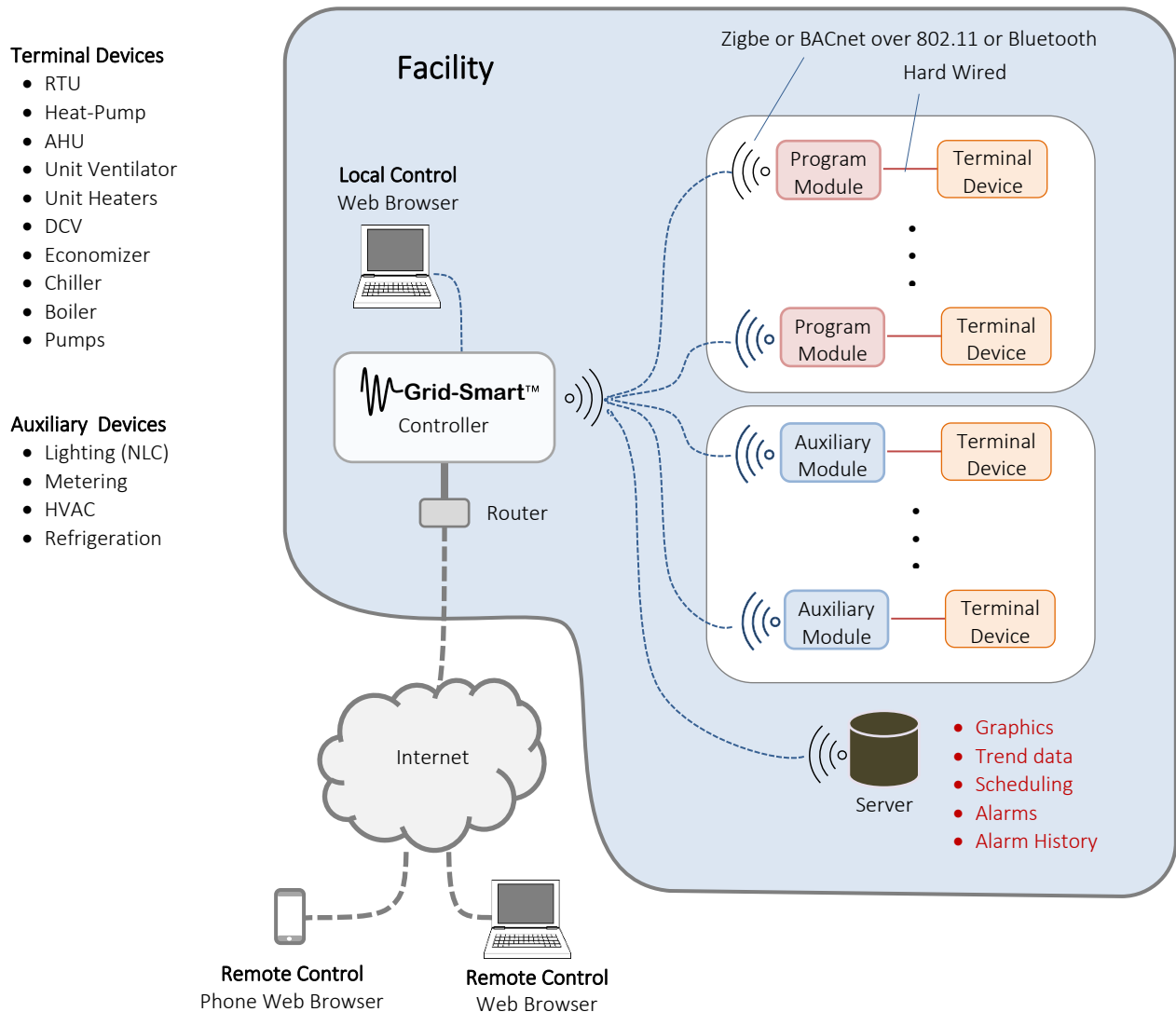
Grid-Smart Network Layout

Grid-Smart™ Control System Overview

The **Grid-Smart™** Control System is a flexible, networked energy management platform designed to optimize facility performance and reduce energy costs. The system centers around the Grid-Smart™ Controller, which provides local control through a web browser and connects securely to both onsite and remote devices.

Terminal and auxiliary equipment—including HVAC, lighting (NLC), demand metering, refrigeration, RTU, boiler, and other controls—integrate seamlessly via Program and Auxiliary Modules using wireless or hardwired connections. A dedicated server manages real-time monitoring, trend analysis, scheduling, alarms, and historical reporting, with full remote access via web browsers.

Grid-Smart™ can operate as a stand-alone EMS or overlay an existing legacy system, delivering enhanced energy savings, lower demand charges, and improved operational efficiency..



Network Lighting Controls (NLC)

Grid-Smart™ (NLC) provides a means to monitor, analyze and proactively initiate automated real-time network lighting controls (NLC), minimizing energy usage (kWh) and demand (kW) ¹.

- Measure, report, control, and optimize your energy use in a single building or across multiple facilities.
- Generate energy savings automatically year after year.
- Enhance the comfort and productivity of building occupants. That's the power of **Grid-Smart™** NLC.

The Grid-Smart™ platform delivers a unified dashboard for your entire building automation ecosystem. Our solutions readily integrate with your existing infrastructure to provide:

- Granular monitoring and control with standalone sensor solutions
- Local room-based systems for gateway-free control
- Networked building management systems
- Global enterprise-grade analytics across portfolios

This enables consolidated visibility and control for smarter, more efficient operations. Our scalable approach allows you to start small and seamlessly expand capabilities as needs grow.

- Whether managing a single site or a global portfolio, the **Grid-Smart™** platform empowers you with actionable insights to optimize comfort, occupancy, maintenance, and energy usage across your built environment. It is the foundation for unified, intelligent building and energy management.

¹ As described in the introduction, **Grid-Smart™** entails far more than Network Lighting Controls (NLC). For details on its other energy solutions capabilities please see www.ecesddc.com for brochures and videos describing the full capabilities of **Grid-Smart™**

Value of Service

Modern control systems offer unprecedented versatility and capability, enhancing occupant productivity, reducing energy consumption, and lowering a building's carbon footprint. Our services maximize these benefits by ensuring timely project completion, preserving design intent for both new and existing buildings, and minimizing downtime throughout the building's lifecycle.

This brochure showcases a comprehensive range of services tailored to support and enhance **Grid-Smart™ (NLC)** systems while accommodating your budget and schedule¹.

These services can also contribute to LEED certification and ensure compliance with evolving building and energy codes, including ASHRAE Standard 90.1-2010, IECC 2009, and California Title 24 Part 6

- **Startup Services**

Designed to ensure newly installed **Grid-Smart™** Network Lighting Control (NLC) systems are operational on schedule and functioning as designed. Options are available for both new construction and retrofit projects.

- **End-User Services**

Support offerings tailored to meet individual user and organizational needs, providing education, resources, and system reprogramming.

- **Maintenance and Support Services**

We offer various warranty options, from 2-Year Limited Warranties to Enhanced Warranty coverage. Technology Support Plans and elective Maintenance Services can be customized to your unique system requirements, even post-installation.

- **System Replacement and Upgrade Services**

Our team is committed to product innovation, supporting your lighting system goals when upgrading existing technology. Whether you're updating your system or replacing switches, our Grid-Smart™ Specialist is ready to assist.

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Project Stages

Engage at the Right Time

There are critical stages to every controls project. Plan to determine when a specific service should be ordered to support a successful project implementation. Ensure the appropriate services are selected to meet your project goals.

The listing below shows the phases of a typical lighting controls project as well as the services that can be provided in each phase.

Planning and Design

- All Startup Services
- End-User Services
 - Remote End-User Training
 - On-site End-User Training

Construction Stage

- Startup Services
 - Remote Kickoff
 - On-site Kickoff
- All End-User Services

Operation and Maintenance

- All End-User Services
- All Maintenance and Support Services

Renovation and Retrofit

- Startup Services
 - Audit – On-site Performance Verification Support
 - Remote System Tuning
 - On-site System Tuning
- All End-User Services
- All Maintenance and Support Services
- All System Replacement and Upgrade Services

Service Offerings

Startup Services

Service	UOM	Description	SKU
Sensor Design and Layout	per 100 devices	A Grid-Smart™ (NLC) design expert creates a sensor layout tailored to your floorplan to ensure perfect coverage.	GS-DESIGN-100DEV
Remote Kickoff	per half day	Conference call and screenshare to ensure all parties are aware of the installation steps and prerequisites, as well as provide time for questions and concerns from all stakeholders.	GS-REMOTE-AH*
On-site Network Consultation	per day	In-person site visit from Grid-Smart™ (NLC) IT professional to assist with Local Area Network connection.	GS-ONS-NWK-8H
On-site Kickoff	per day	In-person meeting to ensure all parties are aware of the installation steps and prerequisites, as well as provide time for questions and concerns from all stakeholders. Additionally, this facilitates a more hands-on kick off that may include a site walkthrough to ensure all potential issues are addressed.	GS -ONS-KICKOFF-8H*
On-site Post-Installation Verification	per gateway	In-person installation and wire inspection by Grid-Smart™ (NLC) technician to confirm proper installation of devices and certify that the site is ready to proceed with commissioning and programming of system.	GS-ONS-POSTINST-GTWY
On-site Full-Scope Startup	per 200 devices	Complete turnkey commissioning and programming of system, including pre-wire kickoff and post-wire installation verification.	GS-ONS-FULL-GTWY
Audit - On-site Performance Verification Support	per day	In-person visit from a Grid-Smart™ (NLC) system engineer to assist in system audit for certification (title 2 A, LEED, etc.).	GS-ONS-AUDIT-8H
System Operation Documentation	per gateway	System performance documentation to be supplied including full system device inventory, configured state, and operational status.	GS-ONS-SOD-GTWY

* NOTE: a kickoff call is required for all installations.

** NOTE: an on-site representative is needed for all remote services. This representative will need access to the **Grid-Smart™ (NLC)** app as well as the QR code for all zones being addressed.

End-User Services

Service	UOM	Description	SKU
On-site End-User Training	per day	In-person end-user system training.	GS-TRAIN-ONS-8H
Remote End-User Training	per halfday	Webinar based end-user training.	GS-TRAIN-REM-AH
On-site System Tuning	per day	Sensor and timeout tweaking by a Grid-Smart™ technician to ensure quality baseline settings.	GS-ONS-TUNE-DAY
Remote System Tuning	per gateway	Review and refinement of settings over the phone with a certified Grid-Smart™ system engineer.	GS-REMOTE-TUNE-AH

Maintenance and Support Services

Service	UOM	Description	SKU
Basic Support	per gateway per year	Access to support portal, first available response time, diagnostic labor Note: All support offerings require On-site Post-Installation Verification.	GS-SUP-L1-GTWY
Economy Support	per gateway per year	Access to support portal, 72 hour response time excluding holiday, diagnostic labor. Note: All support offerings require On-site Post-Installation Verification.	GS-SUP-L2-GTWY
Premier Support	per gateway per year	Access to support portal, A8 hour response time excluding holiday, diagnostic labor. Note: All support offerings require On-site Post-Installation Verification.	GS-SUP-L3-GTWY
Per Incident Triage	per incident	Unscheduled support assistance for triaging a single issue.	GS-SUP-PER-INC-TRIAGE

System Replacement and Upgrade Services

Service	UOM	Description	SKU
Database Restoration Service	per gateway	Professional system restore by a member of Grid-Smart™ Support	GS-A10-01-1006-01
Replacement Grid-Smart™ Manager	per gateway	Grid-Smart™ Energy Manager with flexible mounting options and EnergyCenter® Enterprise Software.	GS-A13-01-2020-OA

Contact and Support:

Please visit us online for additional support at
www.ecesddc.com