



# CATOM Energy Management

**CATOM** reduces electricity consumption - **You** save money - **We** stay **green!**



Catom's system is the most advanced application for organizational electricity management. It emphasizes energy savings and lower maintenance costs.

Our system includes two main modules:

**CATOM-Lighting Management** - Enables the management of the lighting aspect (on HID bulbs)

**CATOM-Electricity Management** - Enables organization's electricity management

The system enables users on various levels to perform their work in the most effective and efficient manner, while sharing information and demonstrating transparency throughout the entire organization.

### CATOM-Lighting Management offers powerful tools which enable the user the following:

**1. Maintenance Managers and Personnel can -**

- Monitor various variables.
- Conduct preventive maintenance.
- Present comparisons between the cost-effectiveness of several types of equipment.

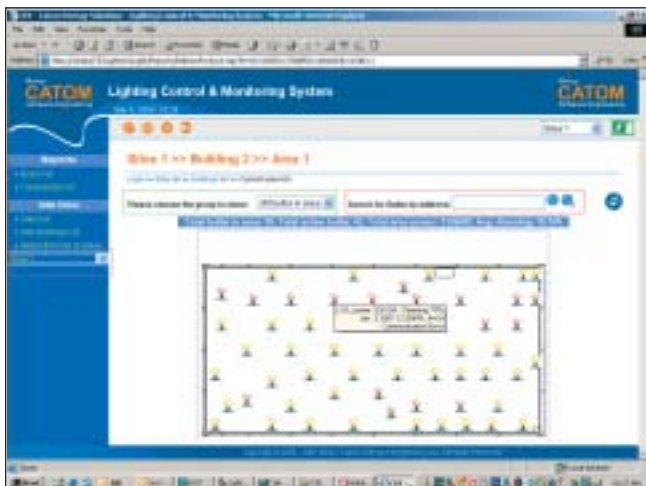
**2. Department Managers can -**

- Understand lighting consumption and its cost in their specific department in comparison to corresponding departments.
- Control lighting in various areas of their department.

**3. Accountants can -**

- Monitor the savings achieved as result of using Catom's lighting system.

## CATOM-Lighting Management – Main Characteristics



Current Area Info



List of Area Faulty Ballasts/Bulbs

**Enables savings of over 40% of high voltage lighting electricity consumption, as result of a more accurate operation, monitoring and continuous repair of the desired amount of light in real time**

- ▶ Gathering of parameters such as: KW, working time, ignitions numbers, status presentation, temperature, etc.
- ▶ Controlling and monitoring abilities at the single bulb level.
- ▶ Performing actions of turning on, turning off and dimming of a single bulb and /or a group of bulbs.
- ▶ Correcting the amount of light, according to the amount of light measured in various areas of a defined space, and delivering dimming commands to groups of bulbs.
- ▶ Supporting several ballast types simultaneously.
- ▶ Presenting last power value measured for given ballast.
- ▶ Working according to organizational or departmental work patterns.

**Analyzing and understanding the cost of lighting electricity consumption**

- ▶ Graph presentation of total electricity consumption (from date/time to date/time) for a single bulb or a group of bulbs.
- ▶ Cost report for a date range, according to an average KWH cost.
- ▶ Over heating of faulty bulbs and/or communication problems with bulbs.
- ▶ Reports and graphs presenting electricity consumption savings achieved by using Catom-Lighting Management system.
- ▶ Preventive maintenance reports.

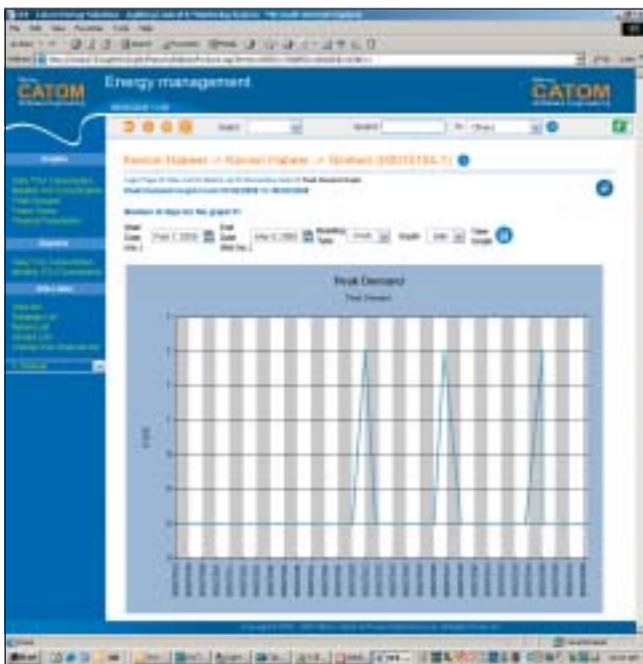


**CATOM-Electricity Management offers powerful tools which enable the user the following:**

1. **Maintenance Managers and Personnel can -**
  - Monitor electric parameters while receiving instant warnings of every deviation from the defined norm.
2. **Department Managers can -**
  - Understand lighting consumption and its cost in their specific department in comparison to corresponding departments.
  - Prepare cost forecast for the following year and define saving objectives.
3. **Accountant can -**
  - Produce cost reports for the following year based on previous years.
  - Charge various consumers with greater accuracy.



**CATOM-Electricity Management – Main Characteristics**



Peak Demand Graph

Phase	V	I	P	E
Active Power	230.00	200.00	46000.00	46000.00
Reactive Power	230.00	200.00	46000.00	46000.00
Complex Power	230.00	200.00	46000.00	46000.00
Power Factor	230.00	200.00	46000.00	46000.00
Energy	230.00	200.00	46000.00	46000.00

Momentary Data

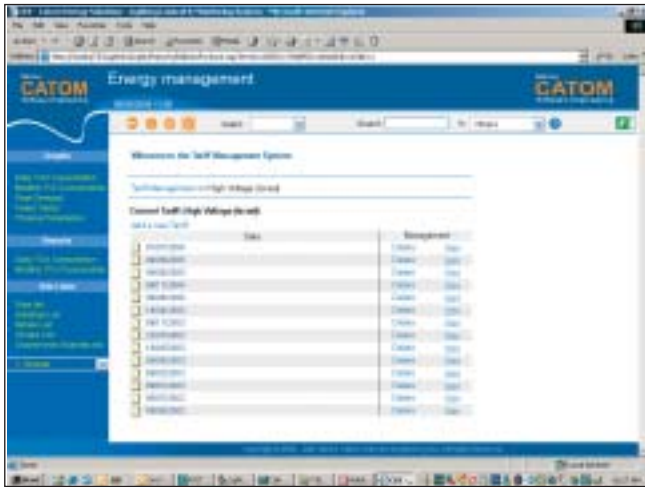
**Analyzing and understanding the cost of electricity consumption**

- ▶ Daily presentation of electricity consumption for each TOU period and for all three periods together.
- ▶ Cost reports for a date range which include the following data for each TOU period: previous reading, current reading, total consumption, total cost for a specific TOU period and total cost for all TOU periods. Available in NIS and US Dollars currencies.
- ▶ Defining alerts for each channel regarding TOU data; receiving alerts of channels which do not measure electricity consumption, perform inverse measure, etc.
- ▶ Reports which assist in preparing electricity budgets for the following year.
- ▶ Defining calculated channel groups (groups that their consumption value is calculated using a mathematical formula which defines various relations between consumptions of real existing field channels).
- ▶ Producing an energy balance report for each group of channels which meets the required definitions.

**Continuous real time monitoring of momentary data**

- ▶ The system reads servers which enable gathering of the following electric parameters: V, I, PF, KW, KWh, Angle, KVar, KVA, KVarh and KVAh (varies according to meter type).
- ▶ Support of several meter types simultaneously.
- ▶ Presentation of value of last call from the measuring point, immediately upon selecting a channel.
- ▶ Production of various reports based on the information stored in the database.
- ▶ Defining notifications for each channel and each phase; receipt of an immediate notification by email and/or SMS when read value deviates from the defined thresholds.
- ▶ Presentation of power factor and peak demand graphs for each measuring point, on a daily basis.

## CATOM-Electricity Management – Main Characteristics



Tariff's Management System - Tariff's List



Alerts Report

### Preparing loading bills

- ▶ Managing a tree structure which presents distribution of meters in the organization in a simple and clear manner for any user.
- ▶ Managing loading tables for each measurement channel (physical and calculated).
- ▶ Setting types of tariffs for each measuring channel.
- ▶ Producing bills for all relevant personnel.

### Efficient information sharing between various users in the organization

- ▶ Creating and distributing alerts and reports in a simple and automatic manner among various users.
- ▶ Receiving information from external systems.
- ▶ Operating the software using a standard Microsoft Internet Explorer browser - no need for special installations on users' computers.
- ▶ Providing the option to view information according to need and level of authorization.
- ▶ Interfacing with various meters and producing reports and bills in an easy and simple manner from one central location only.

## Summary

**Catom Energy assists in controlling, supervising, monitoring, maintaining and continuously managing the organization's electricity economy.**

- ▶ Enables an accurate presentation of the organization's electricity consumption and serves as a unified platform suitable for working in conjunction with various devices (meters, UPS systems, lighting).
- ▶ Offers easy and simple-to-use software tools which assist the organization's personnel in working efficiently and accurately.
- ▶ Provides added value to IT personnel while using existing infrastructures and standard abilities.

## Catom Energy - Facing the Future

- ▶ Interfacing with a wider variety of devices.
- ▶ Defining reports and graphs independently by the client.
- ▶ Developing future modules for energy saving.

Note: Each type of meter supports a group of parameters according to manufacturer's definitions, and therefore it is not always possible to present all parameters for all types of meters.