
KEEPING TRACK OF YOUR FUEL MILLAGE

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Energy Manager
U.S. Coast Guard Yard





Under the
Hood:
Operations
and
Maintenance

- NOT ELECTRICAL ENGINEER
- NOT INTERESTED IN WAVE FORM
- NOT CONCERNED ABOUT HARMONICS
- DON'T CARE ABOUT VOLTAGE

- I NEED TO KNOW:
 - KILOWATT- DEMAND
 - KILOWATT HOURS- CONSUMPTION
 - CUBIC FEET OF GAS
 - CUBIC FEET OF WATER
 - POUNDS OF STEAM
 - TONS OF CHILLED WATER

WHY METER?

- WHERE DOES IT ALL GO?
 - Identify energy hogs
 - Can we control it?
 - Can we reduce it?
- ENERGY POLICY ACT
 - Requires sub-metering



SYSTEM APPROACH

- PROPRIETARY SYSTEMS
- GENERIC METERS WITH PACKAGED COMMUNICATIONS AND SOFTWARE
- GENERIC METERS WITH STANDARD COMMUNICATIONS AND PACKAGE SOFTWARE
- OPEN ARCHITECTURE

ELECTRIC METERS

- YOU DON'T NEED A ROLLS ROYCE WHEN A CHEVY WILL DO
- THREE GRADES OF METERS
 - KILOWATT HOUR AND KW \$600
 - PF, VOLTS, AMPS \$700
 - WAVE FORM HARMONICS \$2,000 Up
- POWER QUALITY ANALYZER
 - \$3,000 to over \$15,000



ELECTRIC METERS

- DON'T FOCUS ON THE TYPE OF METER!
- FOCUS ON WHAT INFORMATION YOU NEED AT THE SITE IT IS INSTALLED.
- HOW OFTEN IS THERE A POWER QUALITY PROBLEM AT THE SITE?

ELECTRIC METERS

- LOOK FOR LOW COST METERING OPTIONS.
- POWER QUALITY CONCERNS CAN BE ADDRESSED ON A SITE BY SITE CASE WITH PORTABLE OR TEMPORARY METER
- Example:
 - C.G. Yard has over thirty shore ties that were upgrade in 1987. Since then there has been only two ties with power quality problems.



PILOT PROJECTS

- COAST GUARD YARD
 - Electric
- CAPE MAY
 - Electric, Gas and Water
- CAPE COD
 - Electric, Gas and Water

■ BASIC METERING

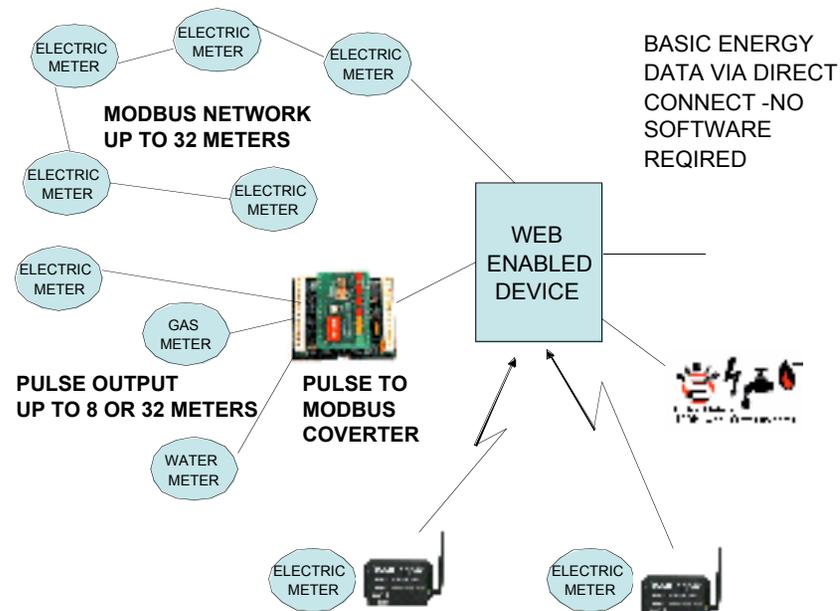


FIGURE 1

■ ENHANCED SYSTEM

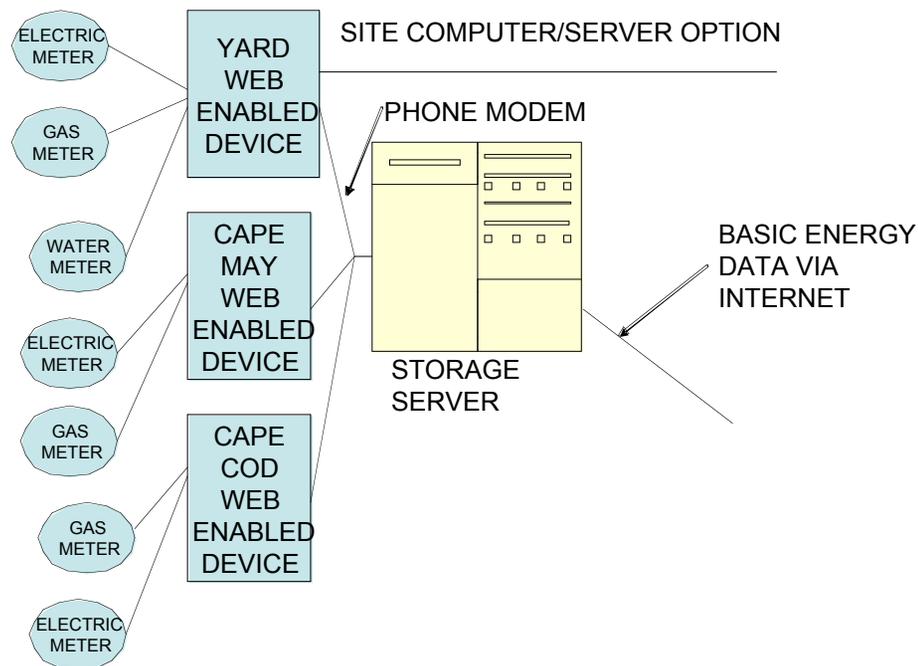
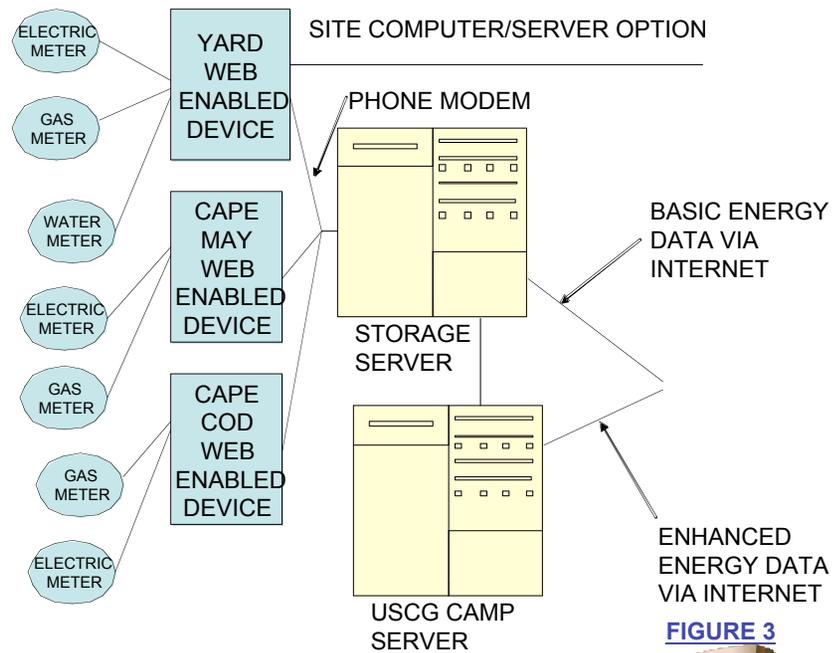
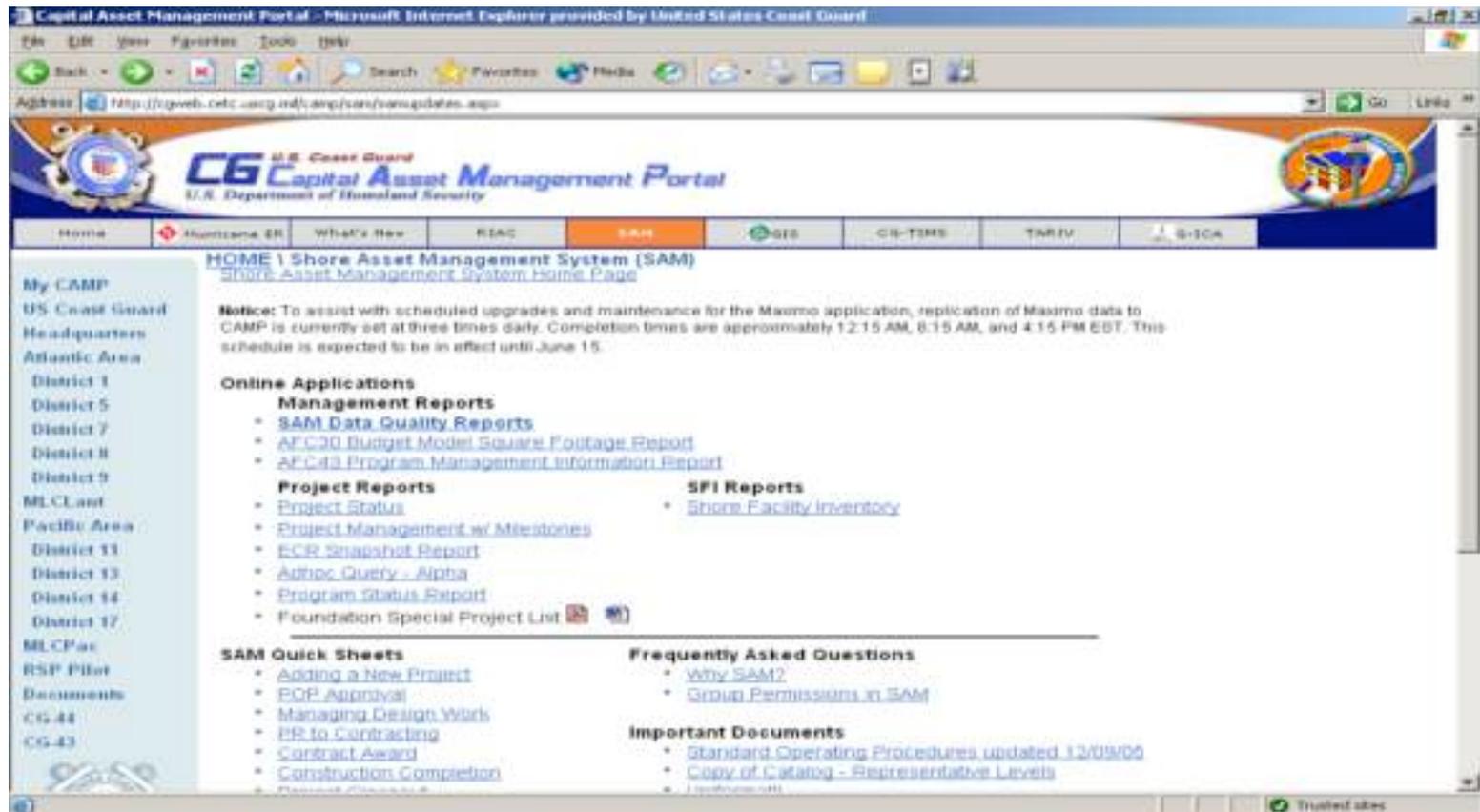


FIGURE 2



■ OASIS SYSTEM





Capital Asset Management Portal - Microsoft Internet Explorer provided by United States Coast Guard

Address: <http://gweb.cdc.uscg.mil/camp/sam/samupdates.asp>

CG U.S. Coast Guard
Capital Asset Management Portal
 U.S. Department of Homeland Security

Home | **Home/AM ER** | What's New | RMC | **SAM** | GIS | CR-TMS | TRIV | S-ICA

HOME | Shore Asset Management System (SAM)
 Shore Asset Management System Home Page

My CAMP
 US Coast Guard
 Headquarters
 Atlantic Area
 District 1
 District 5
 District 7
 District 8
 District 9
 MLCant
 Pacific Area
 District 11
 District 13
 District 14
 District 17
 MLCPas
 RSP Pilot
 Documents
 CG 44
 CG 43

Notice: To assist with scheduled upgrades and maintenance for the Maximo application, replication of Maximo data to CAMP is currently set at three times daily. Completion times are approximately 12:15 AM, 8:15 AM, and 4:15 PM EST. This schedule is expected to be in effect until June 15.

Online Applications

- Management Reports**
 - [SAM Data Quality Reports](#)
 - [AFCO Budget Model Square Footage Report](#)
 - [AFCO Program Management Information Report](#)
- Project Reports**
 - [Project Status](#)
 - [Project Management w/ Milestones](#)
 - [ECR Snapshot Report](#)
 - [Adhoc Query - Alpha](#)
 - [Program Status Report](#)
 - [Foundation Special Project List](#)
- SFI Reports**
 - [Shore Facility Inventory](#)

SAM Quick Sheets

- [Adding a New Project](#)
- [POP Approval](#)
- [Managing Design Work](#)
- [PR to Contracting](#)
- [Contract Award](#)
- [Construction Completion](#)

Frequently Asked Questions

- [Why SAM?](#)
- [Group Permissions in SAM](#)

Important Documents

- [Standard Operating Procedures updated 12/09/05](#)
- [Copy of Catalog - Representative Levels](#)
- [Feedback](#)

Trusted sites



O A S I S

The screenshot shows a Microsoft Internet Explorer browser window displaying the 'CG Capital Asset Management Portal'. The browser's address bar shows the URL: <http://cgweb.cdc.uscg.mil/camp/ent.asp?ID=0537060>. The page header includes the U.S. Coast Guard logo and the text 'CG Capital Asset Management Portal U.S. Department of Homeland Security'. A navigation menu contains links for Home, Hurricane ER, What's New, RIAC, SAM, GIS, CG-TIME, TARJIV, and B-ICA. The main content area is titled 'HOME | USCG | LANTAREA | FIFTH DISTRICT | SEC BALTIMORE' and includes a notice about project and property information. A left sidebar lists navigation options under 'My CAMP', including US Coast Guard Headquarters, Atlantic Area, various Districts (1, 5, 7, 8, 9, 11, 13, 14, 17), MLCant, Pacific Area, MLCpac, RSP Pilot, Documents, CG-44, and CG-43. A central menu lists 'Assets', 'Projects', 'Documents', 'Applications', and 'Contacts'. On the right, a 'Map' section displays a satellite-style map of the Chesapeake Bay area with labels for 'Potsdam COTP Zone', 'SEC Delaware', 'SEC Hampton Roads', and several 'RUITOFF' locations: 'RUITOFF ROCKVILLE RECRUITING COMMAND', 'RUITOFF BALTIMORE', 'NOAA AOCIT', 'STA OXFORD', 'NOAA AOC/NRL FLT SUP DETACH', 'ANT CRISFIELD', and 'USCGC CHOKEBERRY'. The browser's status bar at the bottom indicates 'Unknown Zone (Mixed)'.



O A S I S

Capital Asset Management Portal - Microsoft Internet Explorer provided by United States Coast Guard

Address: http://cgweb.cetc.uscg.mil/camp/ent.asp?ID=0530251

Viewing project and property data for STA CURTIS BAY

My CAMP

- US Coast Guard
- Headquarters
- Atlantic Area
 - District 1
 - District 5
 - District 7
 - District 8
 - District 9
- MLCant
- Pacific Area
 - District 11
 - District 13
 - District 14
 - District 17
- MLCPac
- RSP Pilot
- Documents
 - CG 44
 - CG 43



Assets 
Projects 
Documents 
Applications 
Contacts 

Map 



Lat: 
Long:



Units 

Unknown Zone (Mixed)



OPEN ARCHITECTURE

Utility Report Cards - Microsoft Internet Explorer provided by United States Coast Guard

Address: http://www.utilityreportcards.com/reports2/arc_type.php

Electric Per Day									
Orange County Public Schools << June 2006 >>									
By Zone	Consumption (kWh/Day)			Cost (\$/Day)			Efficiency (Btu/sqft/Day)		
	Current Period	Previous Period	Percent Change*	Current Period	Previous Period	Percent Change*	Current Period	Previous Period	Percent Change
Regular Primary School	16,692	181,568	5%	1,811	14,807	27%	168	149	11%
Regular Middle School	9,591	125,019	10%	914	10,805	22%	203	161	27%
Regular High School	42,646	159,653	-8%	4,046	12,152	12%	129	176	-21%
Special Other	2,022	7,698	-7%	202	594	21%	69	173	-60%
Vocational High School	0	3,244	N/A	0	255	N/A	0	96	N/A
Grand Total Orange County Public Schools	70,961	487,182	-3%	6,773	38,213	19%	147	160	-8%

*The Consumption and Cost figures which are shown on this summary screen are the true values, however, the Percent Change is calculated by comparing data which exists for both the current and previous periods. Thus, if a new school or new meter comes on-line, its previous period will of course be zero and we therefore do not include such new data in our Percent Change calculations. However, if you click on a single School Type, the Percent Calculations on the detail screen will be true and the zero data will be displayed.



OPEN ARCHITECTURE

- KNOW BY VARIOUS NAMES
 - University of Central Florida
 - OES www.energy.ucf.edu
 - Disney World
 - Orange County School System
 - URC www.utilityreportcards.com
 - Hyatt Hotels & Resorts
 - UMS

- METERS
 - Electric, Gas, Water, etc.
- COMMUNICATIONS
 - Modbus, Ethernet, Lonworks, etc.
- DATA STORAGE
 - Local or Remote Server
- SOFTWARE
 - Microsoft, Linux

DATA MANAGEMENT

