



Building and Benefiting From Real-Time Energy Tracking Systems

ENERGY STAR Monthly Partner Meeting

Call in number: 866 299 3188

Conference Code: 202 343 9965#

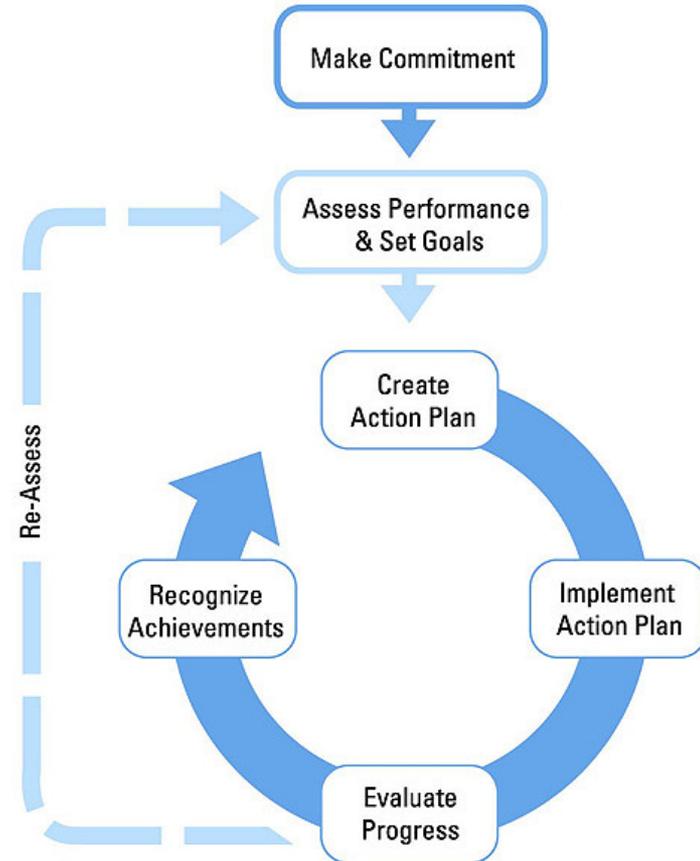


Learn more at energystar.gov

About The Web Conferences



- Monthly
- Topics are structured on a strategic approach to energy management
- Help you continually improve energy performance
- Opportunity to share ideas with others
- Slides are a starting point for discussion
- Open & interactive



Web Conference Tips



- Mute – To improve sound quality, all phones will be muted.
 - Use # 6 to un-mute
 - * 6 to mute
- Presentation slides will be sent by email to all participants following the web conference.

Real-time tracking system



If information is power...

then the more information, the better! Right?

Depends:

- Is it the right information?
- How will it be used?
- Will it support objectives?
- Whose going to manage it?

Today's Web Conference



Building and Benefiting from Real Time Energy Tracking Systems:

- **Dave Chamberlain** from **Raytheon**
- **Steve Smith** and **Wade Royal** from **Nissan North America**



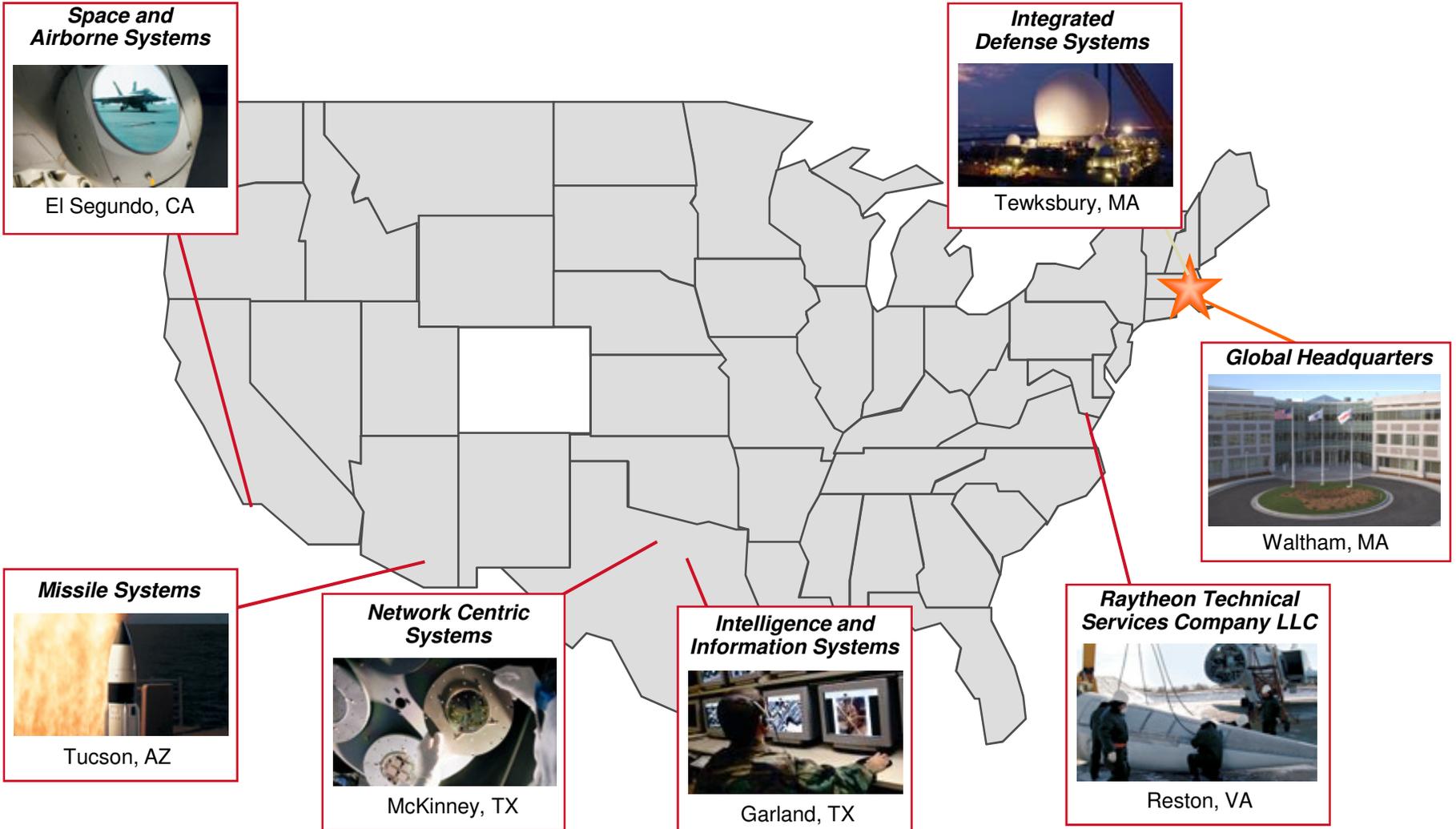
Everyone, Every Day at Raytheon

March 23, 2011
ENERGY STAR Webcast

David R. Chamberlain PE, CEM
Raytheon Company
Integrated Defense Systems



Raytheon Business Headquarters



72,000 employees worldwide, 2010 revenue \$25B

Raytheon Leadership Vision



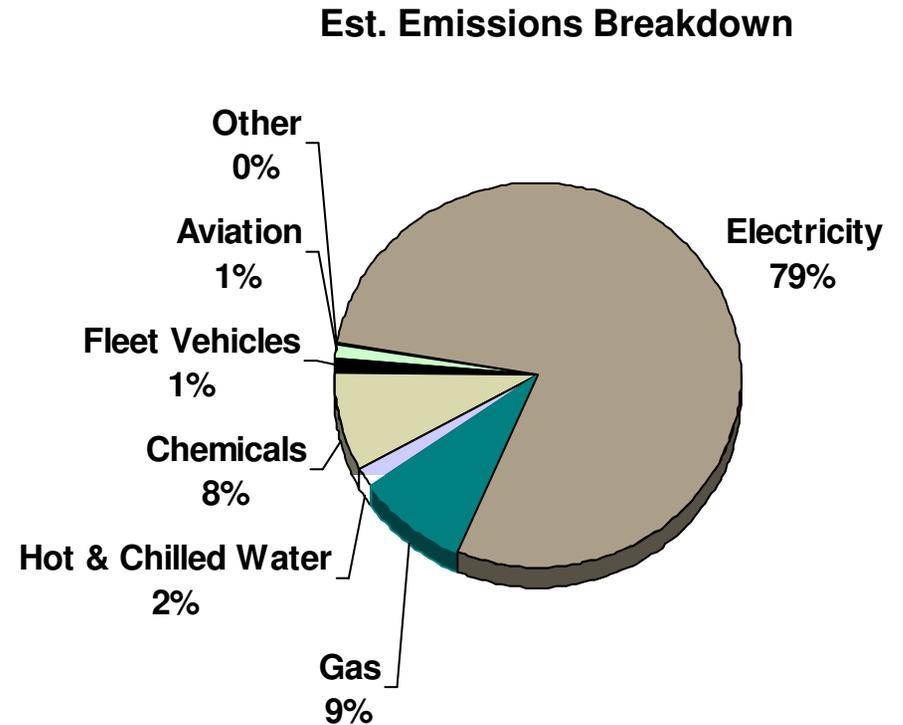
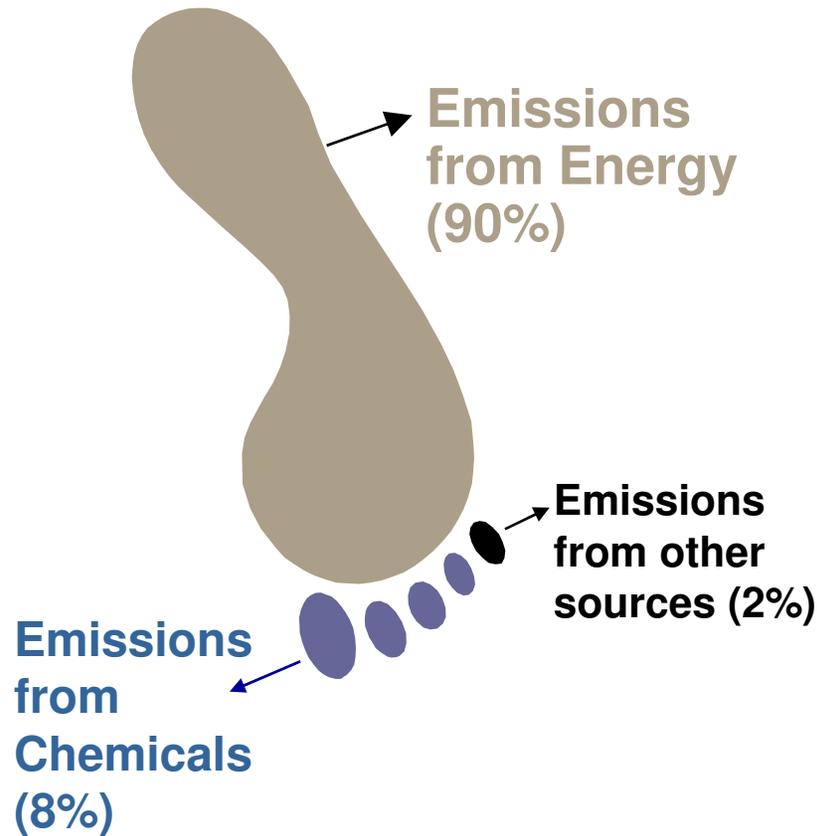
**Bill Swanson, Raytheon
Chairman and CEO**

*"We have the responsibility to return the environment to a place that future generations will be proud of."
(2007 Raytheon Energy Summit)*

"We continue to position ourselves as best in class with regard to environmental and safety programs. For example...since 2005 we reduced our absolute energy consumption at the Company by 12%. To that end, we received the EPA ENERGY STAR Sustained Excellence award for the third year in a row..."

(Q4 2010 Raytheon Earnings Conference Call, Jan 27, 2011)

Raytheon's Carbon Footprint



- Energy costs ~\$100 million per year
- ~1 billion kWh of electricity
- ~11 million therms of natural gas

Without Flight Options

Accomplishments

- Mature and robust program since the mid 1970's
- Recruited and trained over 1,500 Energy Champions
- Qualified almost 40,000 Energy Citizens
- Since 2007, reduced energy usage per dollar revenue 22%
- ENERGY STAR Partner of the Year 2003, 2007
- ENERGY STAR Sustained Excellence Awards 2008-2011
- Recognized 7 of 11 years since joining in 1999



Virtual Business Systems (VBS) Tool



VBS Major Dashboards

Manufacturing Performance
<ul style="list-style-type: none">• Key Metrics• Cell Metrics• Escalation Board

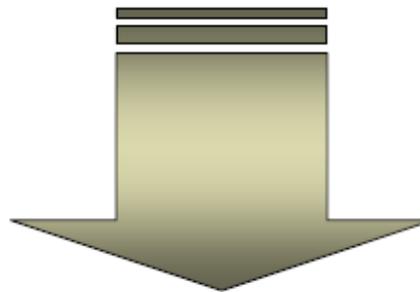
Quality Management
<ul style="list-style-type: none">• Pareto/Rework/First Pass Yield• DPT (Defect Prevention Team)

Supply Chain
<ul style="list-style-type: none">• Material Demand• ITAMS Aging• ITAMS Metrics

Total Employment Engagement
<ul style="list-style-type: none">• Project Book• 6S (WPO)• Issue Board

Representative Work Force
<ul style="list-style-type: none">• Central Overtime Administration• Team Works

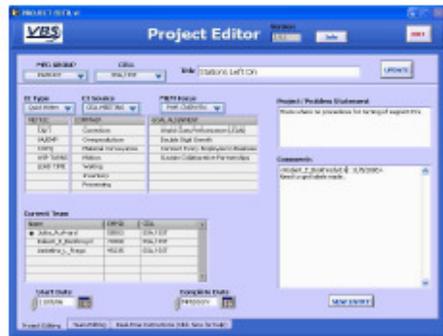
Other
<ul style="list-style-type: none">• Material Acquisition• ECMS Metrics/Codes•



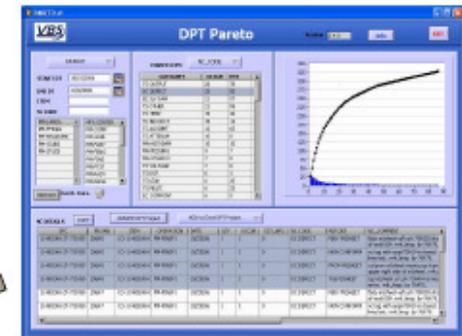
Provide information for real-time decision making

Dashboard Process Overview: Total Employee Engagement

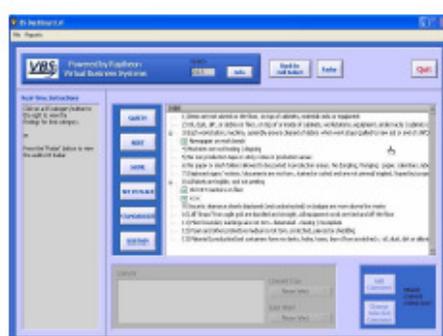
Direct Input



Non-conformances



Work Place Organization



Project Book

MSG GROUP: INSTRUCT | CELL: ALL | Project Filter: Projects | SHOW: OPEN

TITLE	TEAM LEAD	MEMBERS	START	OPEN	CELL	IMPER TYPE	MSG ROLLS
65 SUSTAIN Line Item 4 Finding	Andrew_Versochi	2	8/22/2006		PM&PE	WFO	05
65 S&ME Line Item 12 Finding	MFR_P_Paris	3	8/22/2006		ETL	WFO	04
65 S&ME Line Item 13 Finding	Barry_Ibert	3	8/22/2006		Page Admin	WFO	05
65 SUSTAIN Line Item 10 Finding	Abdoul_Sulthali	4	8/21/2006		Page Admin	WFO	05
65 SUSTAIN Line Item 7 Finding	Andrew_Versochi	4	8/20/2006		ETL	WFO	02
65 S&ME Line Item 2 Finding	Donald D. Nolan	1	8/22/2006		SSA / S&T	WFO	05
65 S&ME Line Item 11 Finding	James_H_Cooper	2	8/22/2006		Page Admin	WFO	05
65 SUSTAIN Line Item 15 Finding	Salvatore_J_Tropese	2	8/20/2006		ETL	WFO	05
65 SORT Line Item 9 Finding	Daryl_Goldswode	3	10/1/2006		ETL	WFO	05
WFO-ET	Alex_Gibbons_Murphy	3	10/25/06		SSA / S&T	WFO	04
PM&S-2 decr	clariga	2	10/25/06		ETL	WFO	

Project/Problem Statement

FOO: Capability levels need to be established

GOAL ALIGNMENT	METRIC	COMPONENT	TEAM
World Class Performance (WCPM)	TACT	Construction	Andrew_Versochi
Double D&C Growth	VA&MP	Overproduction	Salvatore_J_Tropese
Connect Every Employee to Business	COPQ	Material Conveyance	William_Christie II
Increase Collaborative Partnering	WIP TURMS	Material	William_A_Lewis
	LEAD-TIME	Shifting	
		Line Items	
		Processing	

Comments

<William_Christie II (8/22/2006)>
Sent Plans to Andrew V task what the levels are and why we chose 1 on the audit.

<William_Christie II (8/22/2006)>
<William_Christie II (10/18/2006)>
Andrew, have those FOD levels been addressed yet?

<Andrew_Versochi (10/18/2006)>
On 10/18/2006 there will be a peer review on subject policy by SCS, Bill Lewis, our rep.

Add Comment

Operators on the Floor



Multiple Sources For TEE!

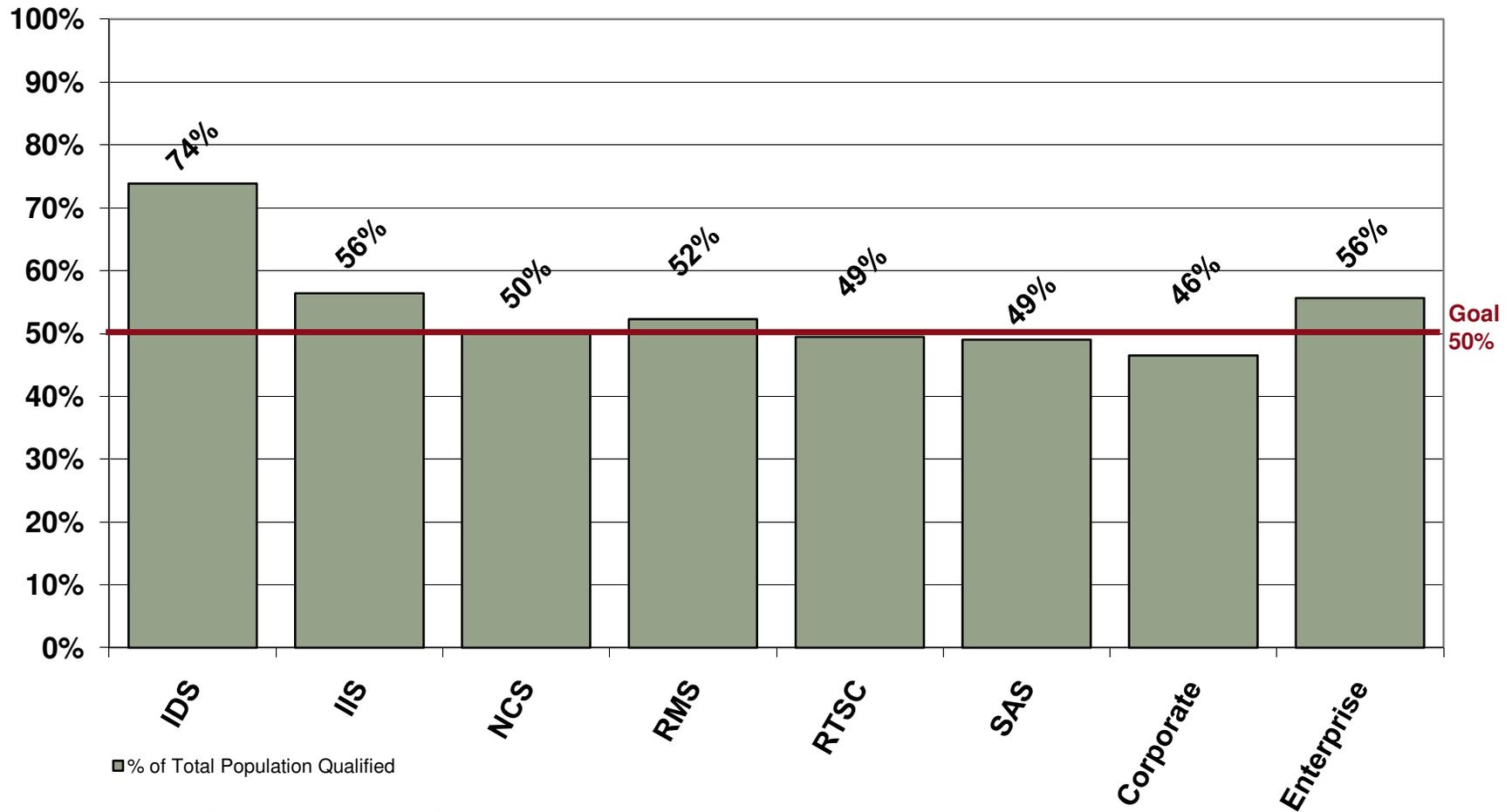
2010 Energy Citizen Standings on VBS

STANDINGS			
THE FLOOR	THE OFFICE	Scroll	
HEAVY WEIGHT DIVISION			
TEAM	MBRS	PCT	NON CITIZENS
CCA	595	96	25
PATRIOT EA SUBS	119	94	7
MTLFAB	141	91	12
PATRIOT	151	88	18
HWIC	123	85	18
SAW	113	53	53
TOTAL	1242	89	133

STANDINGS			
THE FLOOR	THE OFFICE	Scroll	
MIDDLE WEIGHT DIVISION			
TEAM	MBRS	PCT	NON CITIZENS
MAGS	84	98	2
MICROWAVE	79	89	9
MTM	60	80	12
LOGISTICS	86	73	23
CABLES	68	69	21
MV&T	75	43	43
TOTAL	452	76	110

Competition aspect increases employee participation

2010 Energy Citizen Participation



*Based on Domestic Headcount Only
Through 12/31/2010

Exceeded the Goal!

Issues Posted from Energy Audit



Project Book

Version 2.18.7
Info
EXIT

MFG FUNCTION

CCA MFG GROUP

DISPLAY ALL CELL

Projects FILTER

OPEN SHOW

Project List SAN Search CELL MEMBERS ALL 113 CNT

SAN	TYPE	SOURCE	TITLE	TEAM LEAD	START	CMPLN	CELL	IMPRV TYPE
400483		65	65 SAFETY Line Item 8) Finding	Alexander Alabachian	02/14/11		ESSM	WPO
1339932	PRJ	65	65 Manufacturing 2: SET IN PLACE Line It	Donald_T_Slate	01/29/10		Wave Sold	WPO
1382993	PRJ	PRJBOOK	PT/PT do/dso breakdown	PATRICIA E PELOQUIN	03/30/10		CCA Crib	Please Select
1386671	QH	PARETO	11469093 CC MISSING on edges, backside	Kayla_Veronica_Ritner	04/05/10		Conformal	DPT
1404535	PRJ	PRJBOOK	Energy audit	Robert_E_Kenney	04/29/10		Conformal	RYH
1417453	PRJ	PRJBOOK	Analysis of Press Equipment available on n	David_R_Iby	05/19/10		Wave Sold	IDEA
1449128	PRJ	PRJBOOK	11479836 varriable Radio Frequency Coil	James A Lanteigne	07/16/10		ISLAND A	RYH
1450208	PRJ	PRJBOOK	10272948 U8 defective part 11444626-2 c	Stephen P Robinson	07/20/10		ISLAND A	DPT
1464925	PRJ	PRJBOOK	Adhesive Inspection	GLENN P WYLLIE	08/18/10		SMT	IDEA

Search String



Project/Problem Statement

Need energy signs on 3 ovens, 2 in paralyne, 1 in silicon room.

Comments

ALL COMMENTS

ASC

Attachments

Filename	Desc

% Cmpl

TEAM

Name	Cell
◆ Robert E Kenney	Conformal Coat
James H Kern	Conformal Coat
James N Dicarlo	Air to Air
Deborah A Nickles	Phalanx/Ram

Project View
Real-Time Instructions (Click here for help)
HQMS Project View

Best Practice – VBS Energy Audits



STD CHECK LIST

Version 1.2.2
Info
EXIT

MFG
CCA

Conformal Coat

Energy Audit
BACK

COPY

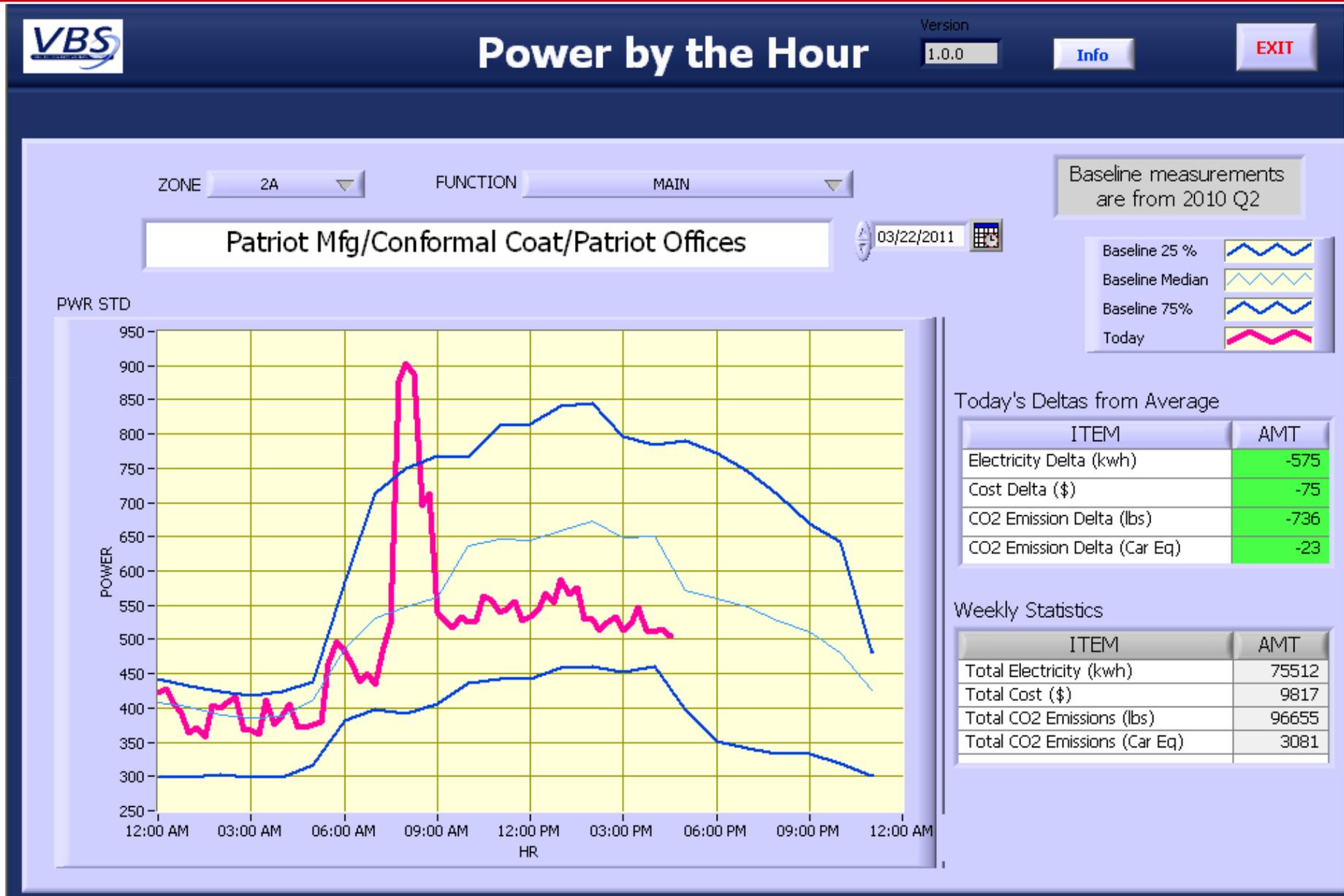
Energy Audit	Comment	Date	Author
<ul style="list-style-type: none"> [-] Energy Audit <ul style="list-style-type: none"> [-] General <ul style="list-style-type: none"> Is Energy Champion sign conspicuously posted? Do people assigned to area know the energy champion? Is all equipment labeled with the appropriate signs? ☞ Is idle equipment operated in accordance with the shutdown requirement(s)? Is an end-of-shift shutdown process in place? For multiple-shift operations: is a shift-handoff process in place? Are self-assessments performed by the Lead or Local Energy Champion? [-] Equipment <ul style="list-style-type: none"> Equipment not operated in accordance with label. Equipment not labeled. Equipment leaking compressed air. 	No findings. All equipment shut down at end of shift.	3/11/2011 9:17:00 PM	James H Kern

PB Issues

PB SAN	SCTN	DSC	COMMENT	START DT	CMLPN DT

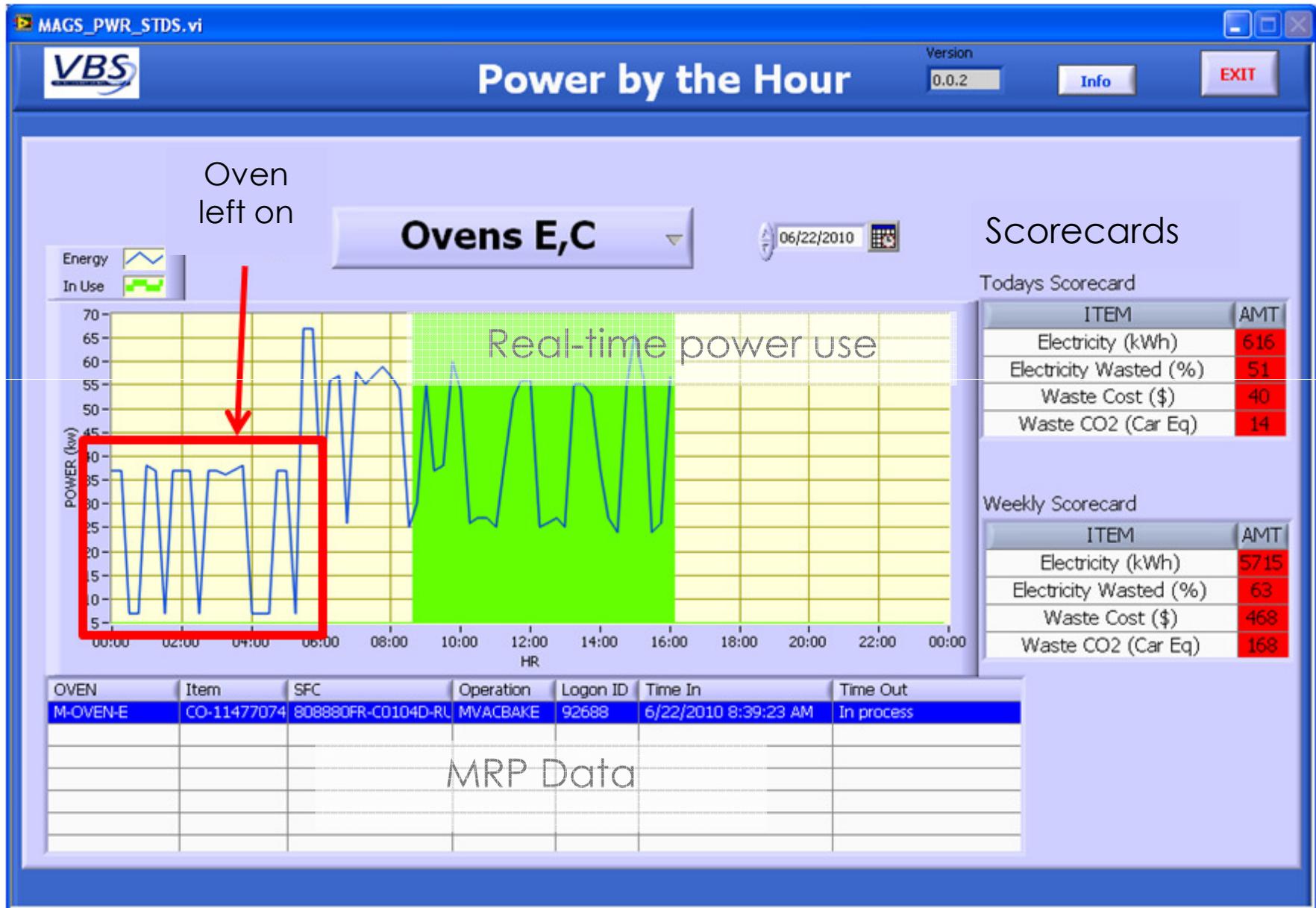
SAVE

Real-Time Feedback to Employees



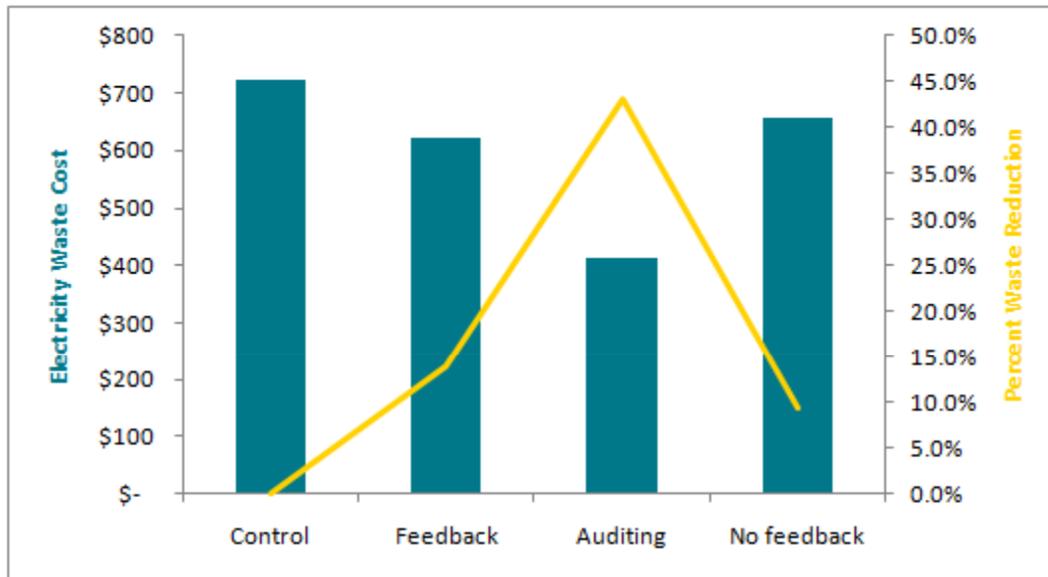
MIT Intern Project

Real-time feedback to operators



Results and Conclusions

Real-time feedback led to 44% waste reduction



% reduction vs. control period:

- 14% with just feedback
- 44% with auditing and feedback
- 9% after MIT intern left (no feedback)

Passive electronic feedback is effective, especially combined with active Energy Champions

2011 Employee Engagement Program

■ Energy Citizen

- What: Continuation of existing training tool to bring energy awareness to new employees and those that didn't qualify during 2010
- How: Enlist all new hires through HR collaboration, oneRTN articles
- Metric: # of Energy Citizens

■ Energy Champions

- What: Harness individuals' passion to reduce energy consumption
- How: Standardize program across all businesses, adopt Best Practices
 - 30 minute volunteer training (minimum)
 - Accountable & active network of volunteers who encourage colleagues to reduce energy waste and identify reduction projects (Best Practice)
- Metric: # of Energy Champions trained, Success Stories, others TBD

■ Rspace Raytheon Sustainability Community

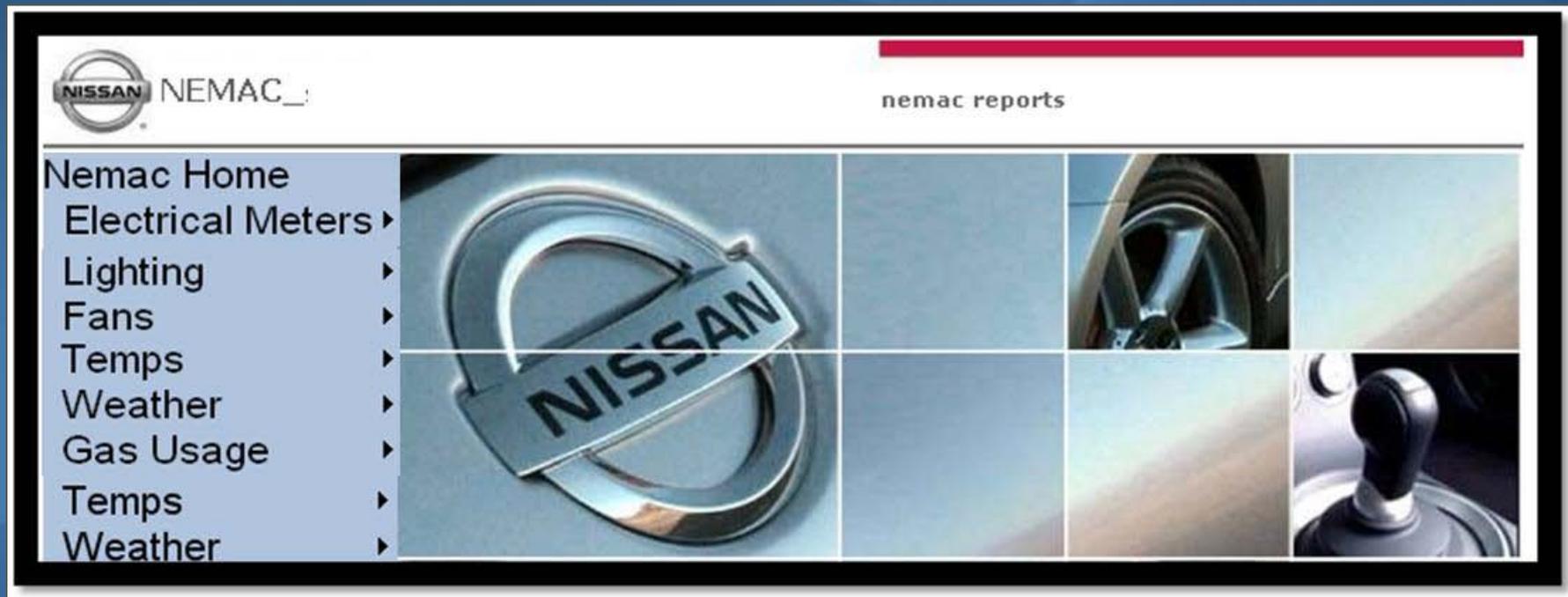
- What: Online collaboration tool for all employees (incl. International)
- How: Utilize existing oneRTN tool, creation and maintenance of Raytheon Sustainability Community
- Metric: # members, # visits, # comments and # replies

Questions?

Dave Chamberlain
Principal Energy Engineer
Raytheon Integrated Defense Systems
David_R_Chamberlain@Raytheon.com
978-436-8128



NISSAN Energy Management and Control



*ENERGY STAR® Energy Management
Networking Web Conference*

Steve Smith, Controls Engineering Manager
Wade Royal, Energy Engineer

March 23, 2011

Nissan Motor Company, Ltd



16 production sites

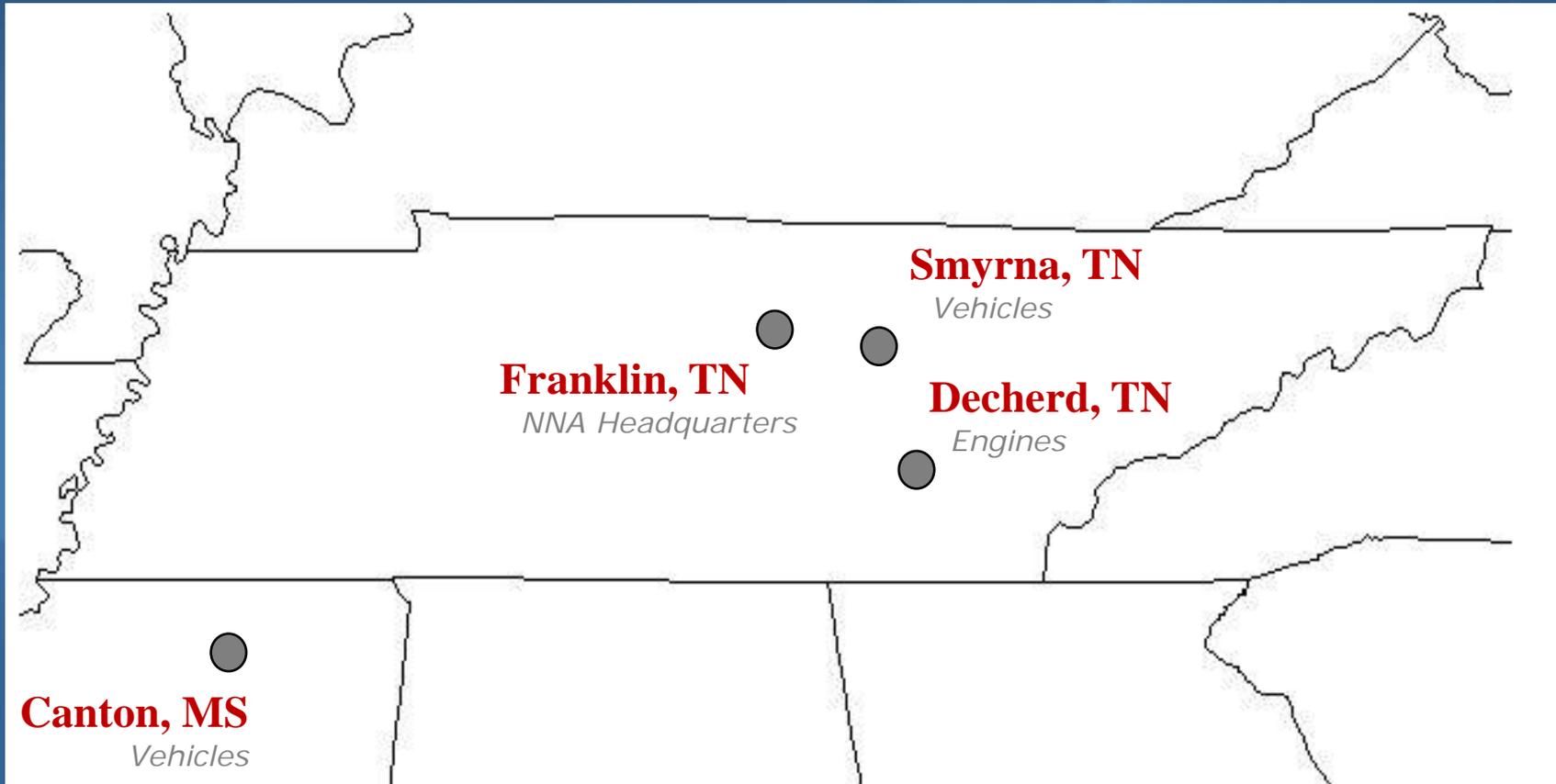


INFINITI.

160 countries

160,000 employees

U.S. Manufacturing Plants



ENERGY STAR
AWARD 2011
PARTNER OF THE YEAR

NISSAN LEAF

NISSAN



zero Emission



Nissan Energy Management and Control System

NISSAN



NEMAC_smyrna

nemac reports

- Nemac Home
- Electrical Meters ▶
- Dechord ▶
- Lighting ▶
- Fans ▶
- Incinerators ▶
- EPA Title 5 ▶
- Temps ▶
- Gas Usage ▶
- Solvent Usage ▶
- Utilities Usage ▶
- Hours ▶
- Configuration ▶



SELECT THE REPORT TYPE

- Intranet-based system
- Customized for Nissan Processes
- Built in-house by Nissan Engineering

Why develop the Nissan Energy Management System (NEMAC)?



- Prior to 2006, primary meters and/or sub-meters for major utilities had been installed via NNA Facilities Engineering new construction projects or retrofit activities
 - Most of these meters were either not analyzed or results collected manually
- 2006 – Energy budgets and accounting transferred from Facilities Engineering to Manufacturing Divisions (Body Assembly, Paint, Trim Assembly, etc....)
- Manufacturing Senior Management **REQUIRED** systems and tools to track energy consumption.
 - Vision / Insight into energy footprint
 - PDCA Process (Plan – Do – Check – Act)

How was NEMAC developed?

- **Identify Stakeholders**
- **Confirm their requirements**
- **Model the Energy System to fit the stakeholder organizational model**
 - **Example:** Energy usage is collected for entire facility, however energy reports and analysis is logically broken down into manufacturing business unit (i.e. Stamping, Body Paint, Trim, administrative, etc...)

How was NEMAC developed?

- **Mission Statement:** Provide a low cost, highly effective energy monitoring solution for NNA Manufacturing.
- **Key Requirements:**
 - Provide one (1) Energy Management system with common interfaces for entire facility
 - Visualize energy usage Historically and Real Time
 - Separate energy profiles so each Manufacturing business unit can manage their energy usage and budgets
 - Collect and report usage data from ALL major commodities that contribute to energy costs: Electric, Gas, Compressed Air, Water and Weather

How was NEMAC developed?

Key Project Milestones

- Obtain Executive support for pursuit of project
- Map the meter network infrastructure
- Establish reliable communications to meters
- Collect meter data at set intervals
- Store and aggregate data per customer requirements
- Validate data collection process
- Finalize the expected reporting format
- Present Historical data via standard web browser reports
- Expose real time meter data via standard web browser
- Present final system to customers and executives for buyoff and support

Major Design Considerations

- User Interface Consistency
- Data Transparency
- Customer Driven with frequent design reviews through entire process

Nissan Energy Management System: Solution Options



Commercial Energy Management Software packages were evaluated

- No Commercial Off the Shelf (COTS) software package provided the exact functionality requested by the internal stakeholders.
- Nissan would have had to redefine their Energy Management requirements in order to fully utilize a COTS software package.
- Nissan already owned and had technical expertise in Enterprise HMI/SCADA software (GE Proficy).
- The Energy Management System requirements were consistent with other NNA manufacturing systems
- GE Proficy software could be easily configured by NNA to meet stakeholder requirements

NNA determined to internally develop the Energy Management System to fully meet the requirements of the internal stakeholders.

NEMAC - Under the Hood

NISSAN



SIEMENS

Microsoft



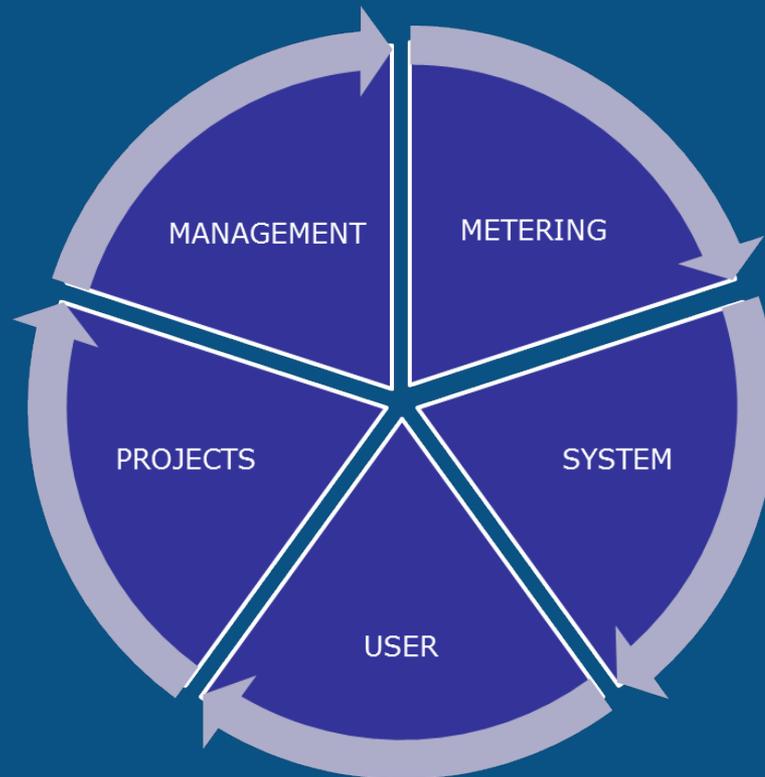
GE
Intelligent Platforms



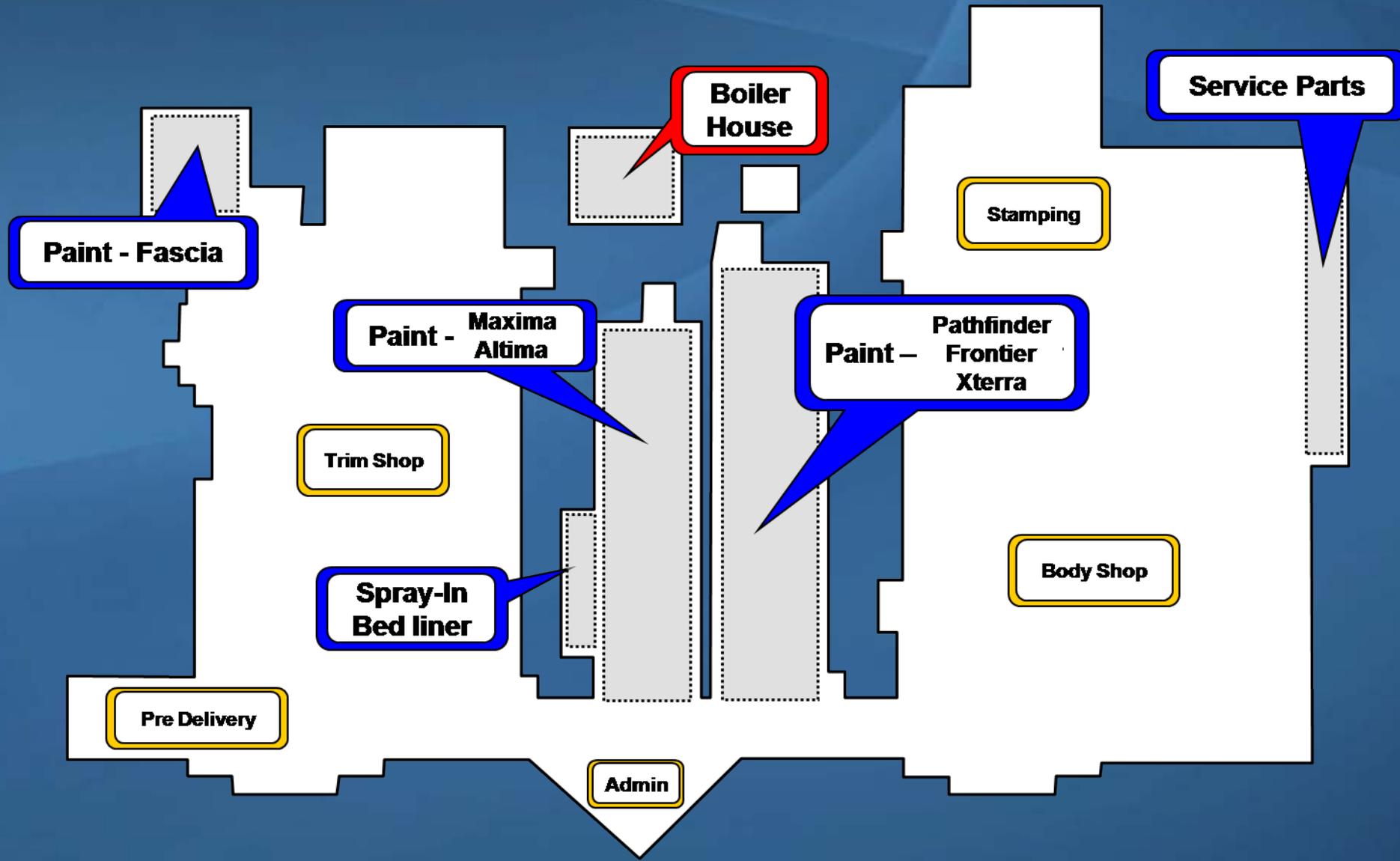
Nissan Energy Management Fast Facts

- Meters Integrated: **650**
- *Number of Real Time Graphics:* **715**
- Number of Reports: **75**
- Number of Website Hits per Week: **700**
- Number of Meter Data Elements: **19,000**
- Database transactions per Day: **1,7280,000**
- Database transactions per Year: **580,608,000**

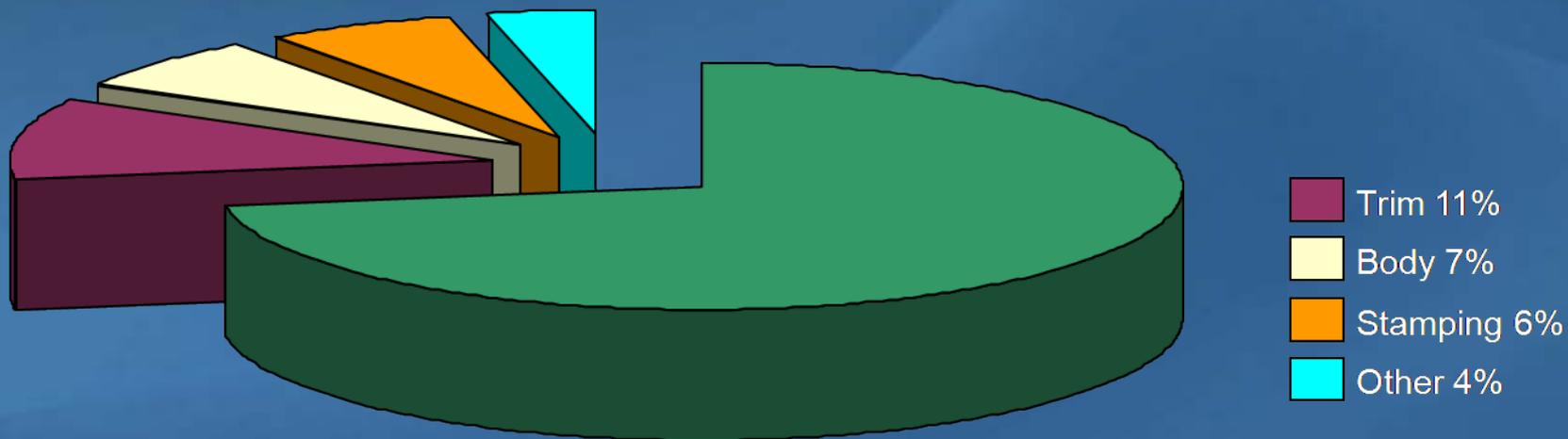
Metering Process Solution



NNA Energy Management Strategy - Stakeholders

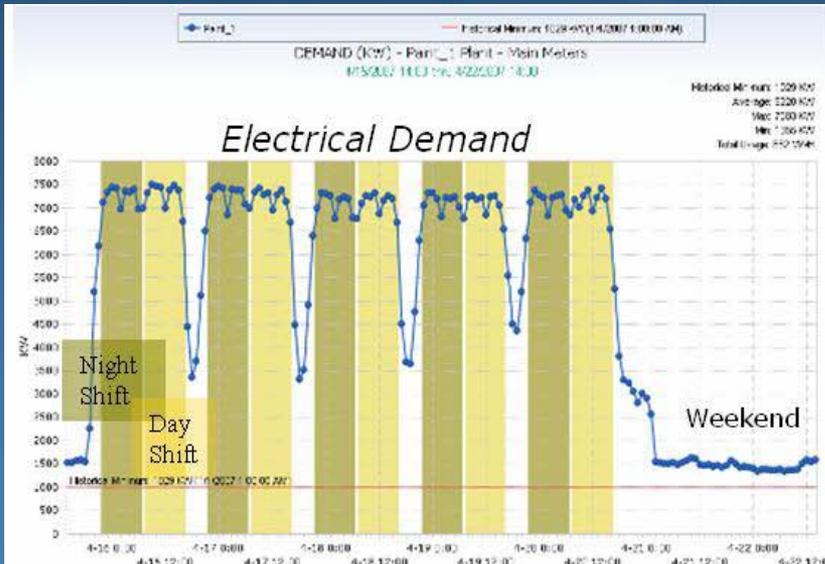


Energy Use by Shop



Paint Systems Use 72% of the Energy at
Nissan North America - Smyrna

Metering, Monitoring & Analysis



SYSTEM 1 ASH SUMMARY

PRIME: 70 33 30 74
TC1: 20 10 70 85 66
TC2: 20 69 70 69 65

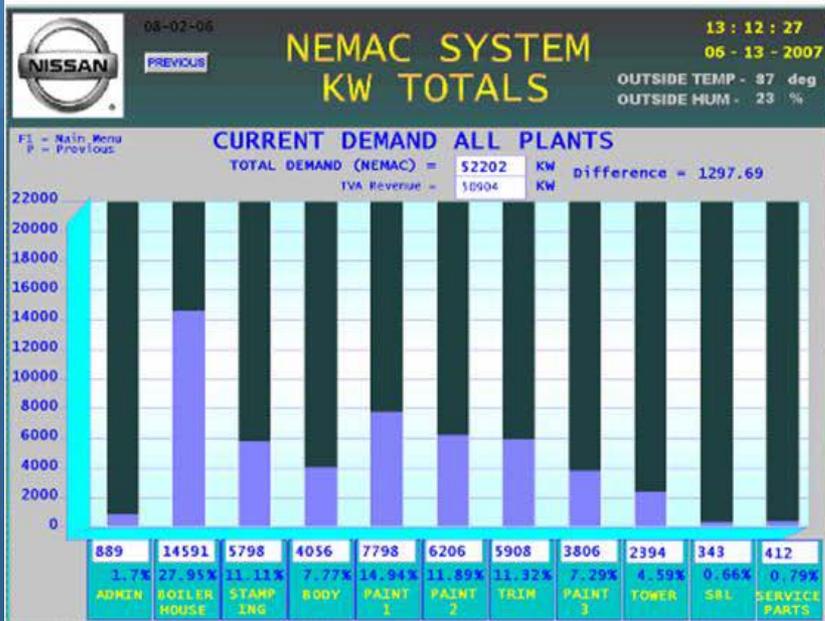
Booth Temps:
Comp Serial 1: 72.6
DS 2/1: 72.4
DS 2/1 SA: 71.8
THERM HP: 74
SHIPAIR: 72
WAK: 78
D/T FLOW RATE: 4264
D/T FIB B WASTE: 47.0
D/T HOT WASTE: 80.0
CARGO TEMP: 89.9
OUTSIDE TEMP: 38.6

SYSTEM 2 ASH SUMMARY

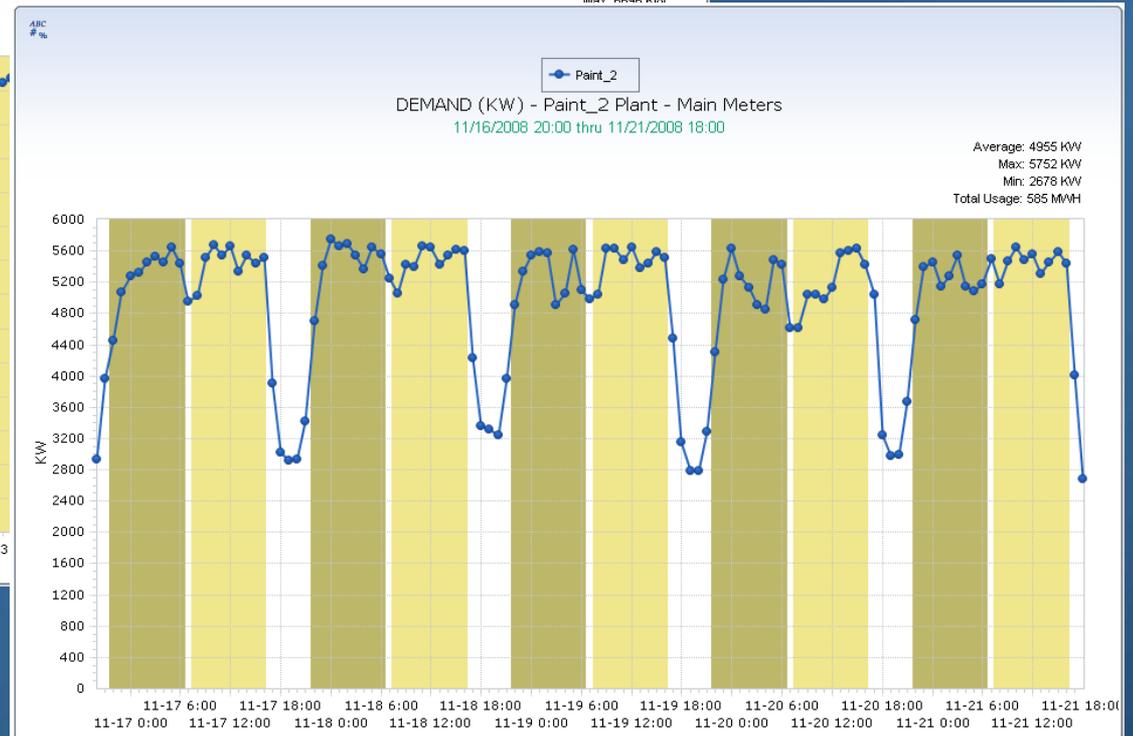
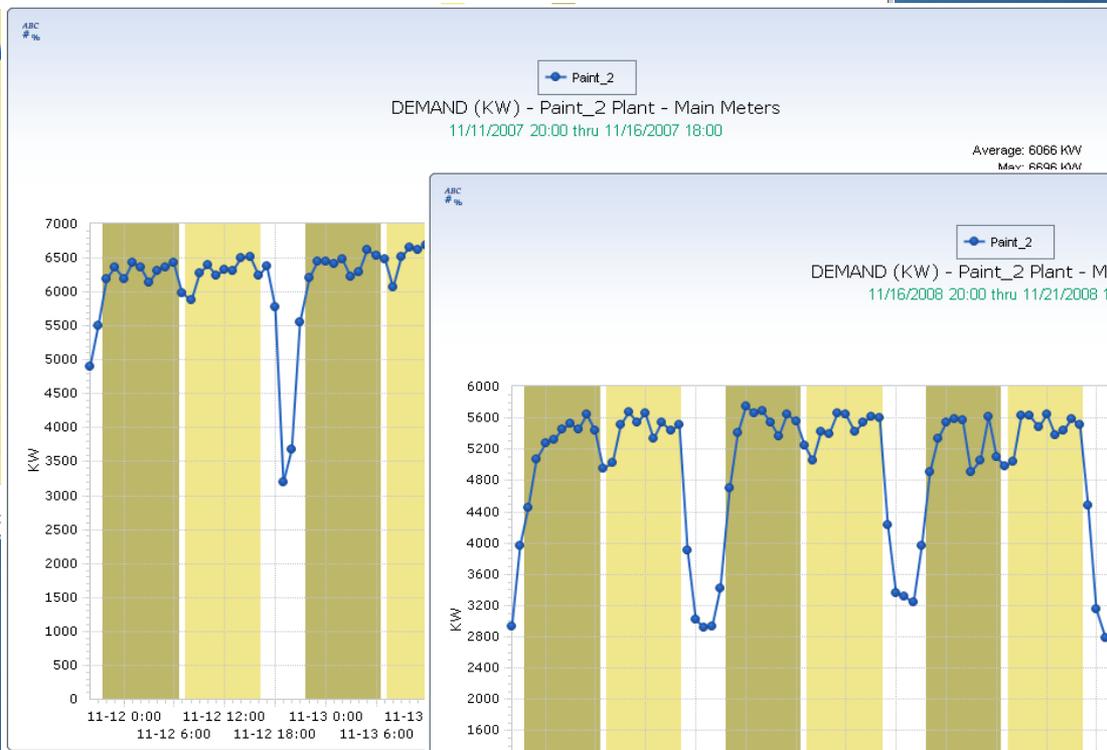
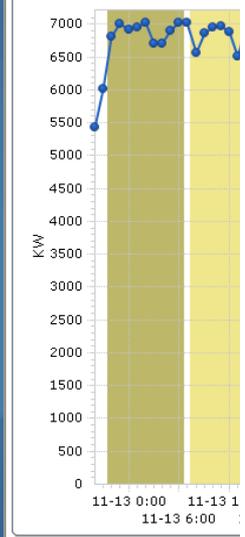
ASH 101: 72.1
ASH 2: 72.0
ASH 3: 80.9
ASH 4: 70.9
ASH 5: 72.1
ASH 6: 72.1
ASH 7: 72.1

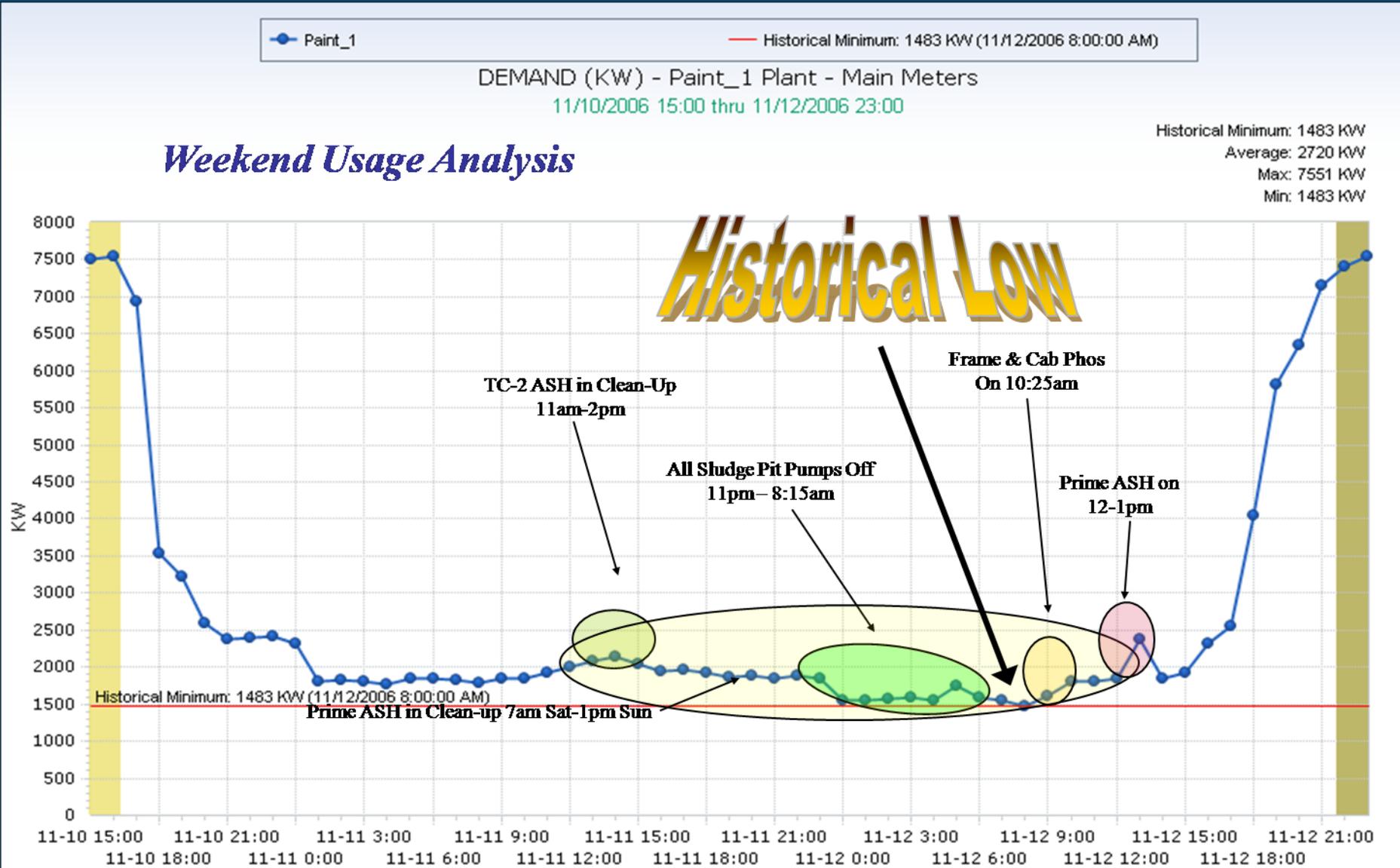
CONVEYOR SUMMARY

CONV Sum 1, CONV Sum 2, CONV Sum 3, CONV Sum 4

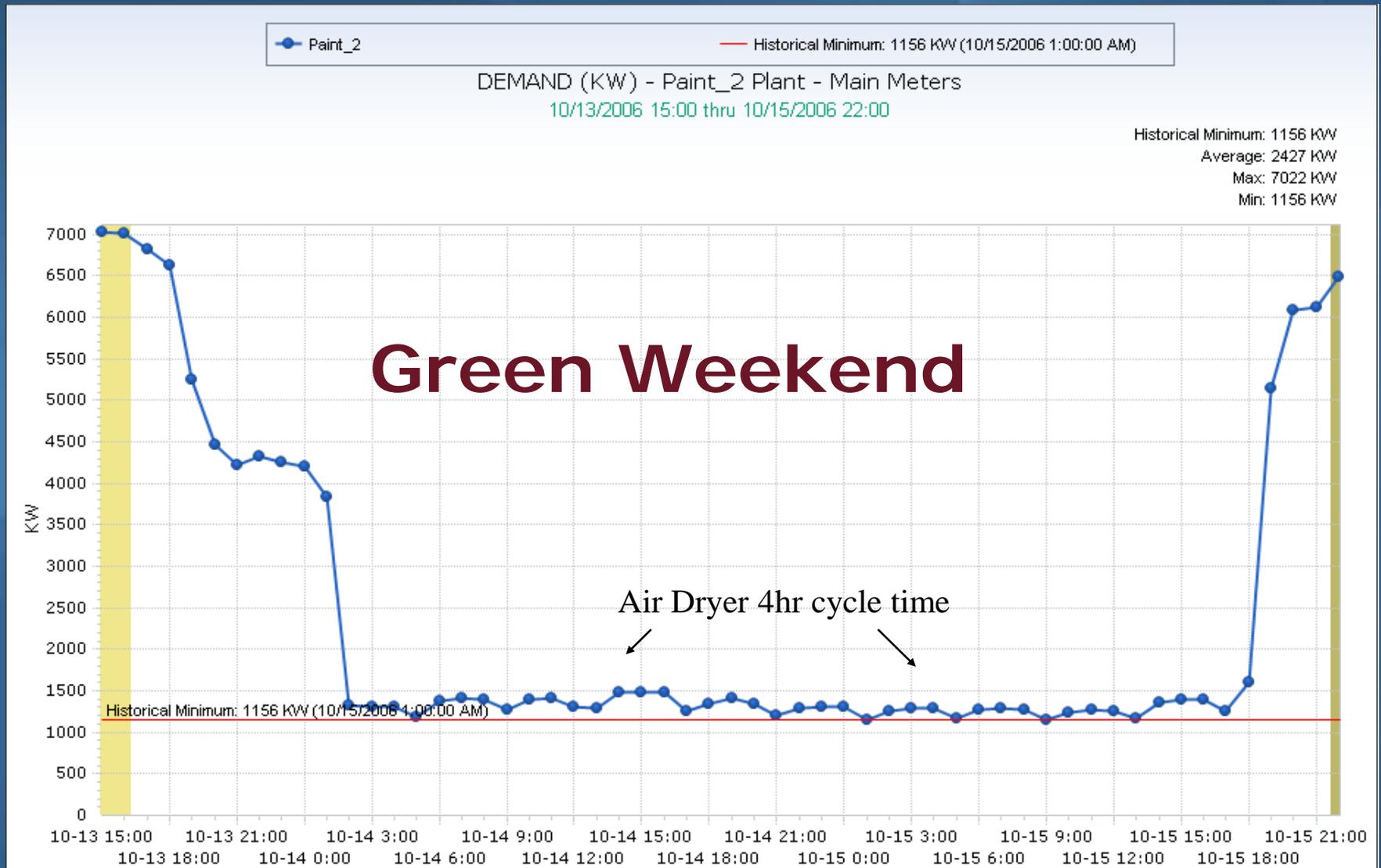


Historical Reporting



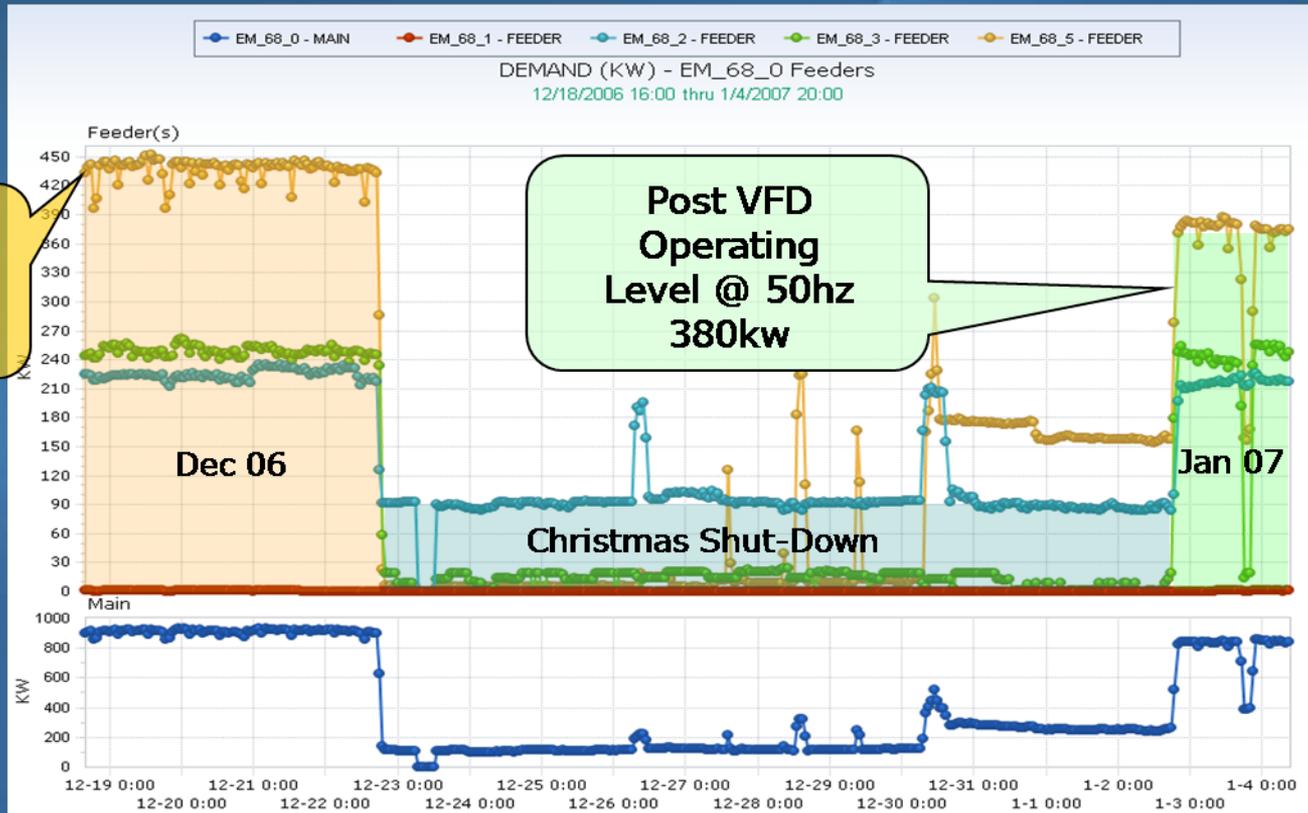


"Lowering the Water"



HVAC 2 Variable Frequency Drive Substation 68 – System 2 Paint

Pre VFD
Operating
Level @ 60hz
440kw



2/7/07

12000kw Saved per Week

Real Time Information



PREVIOUS

NEMAC SYSTEM

DECHERD SUBSTATION KW TOTALS

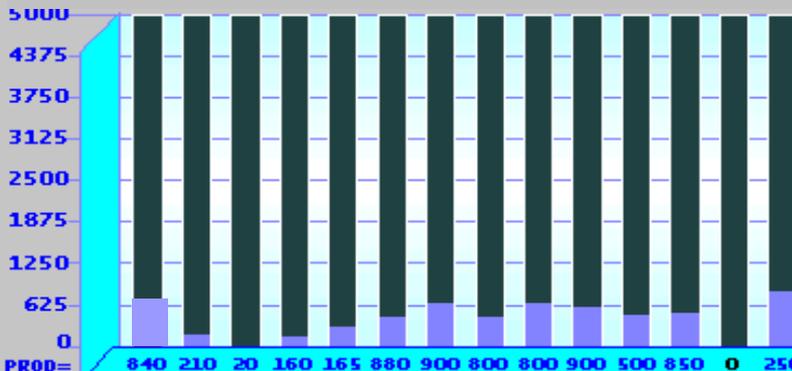
14:32:06
03-09-2009

Alarm Limits Page 1

F1 = Main Menu
P = Previous

CURRENT DEMAND

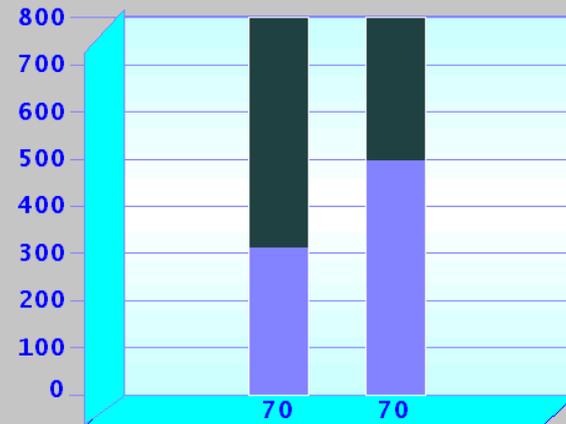
TOTAL DECHERD DEMAND = **8970** KW



474	19	331	684	677	506	0
5.3%	0.2%	3.7%	7.6%	7.5%	5.6%	0.0%
EN 1A	EN 1D	EN 1F	EN 1H	EN 1J	EN 1L	EN 1N
202	180	458	481	612	525	846
2.3%	2.0%	5.1%	5.4%	6.8%	5.9%	9.4%
EN 1C	EN 1E	EN 1G	EN 1I	EN 1K	EN 1M	EN 1N

CURRENT DEMAND

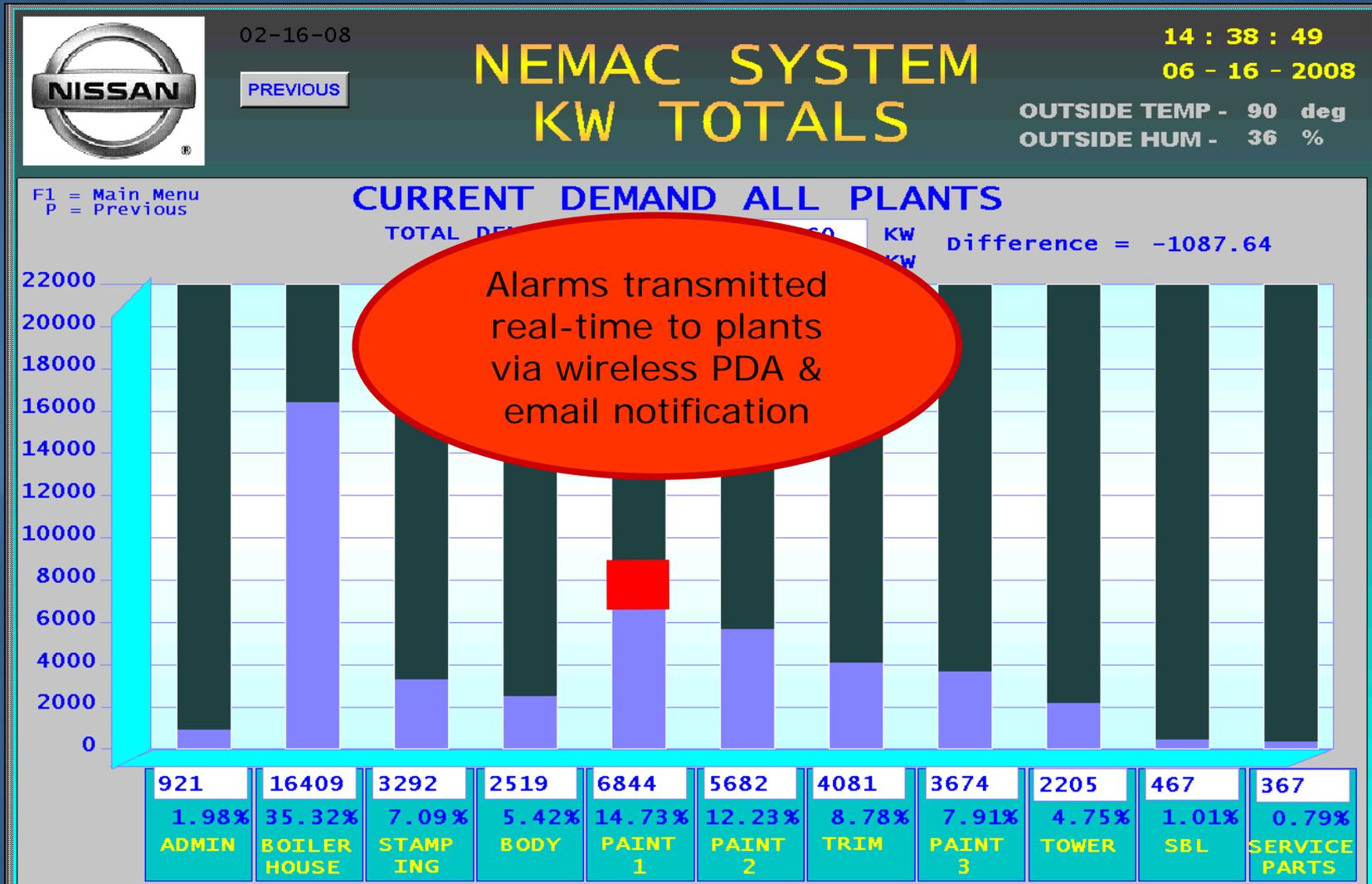
TOTAL SUB EN10 DEMAND = **1050** KW
 TOTAL ASSEMBLY DEMAND = **2552** KW
 CURRENT DEMAND ALL PLANTS = **10078** KW



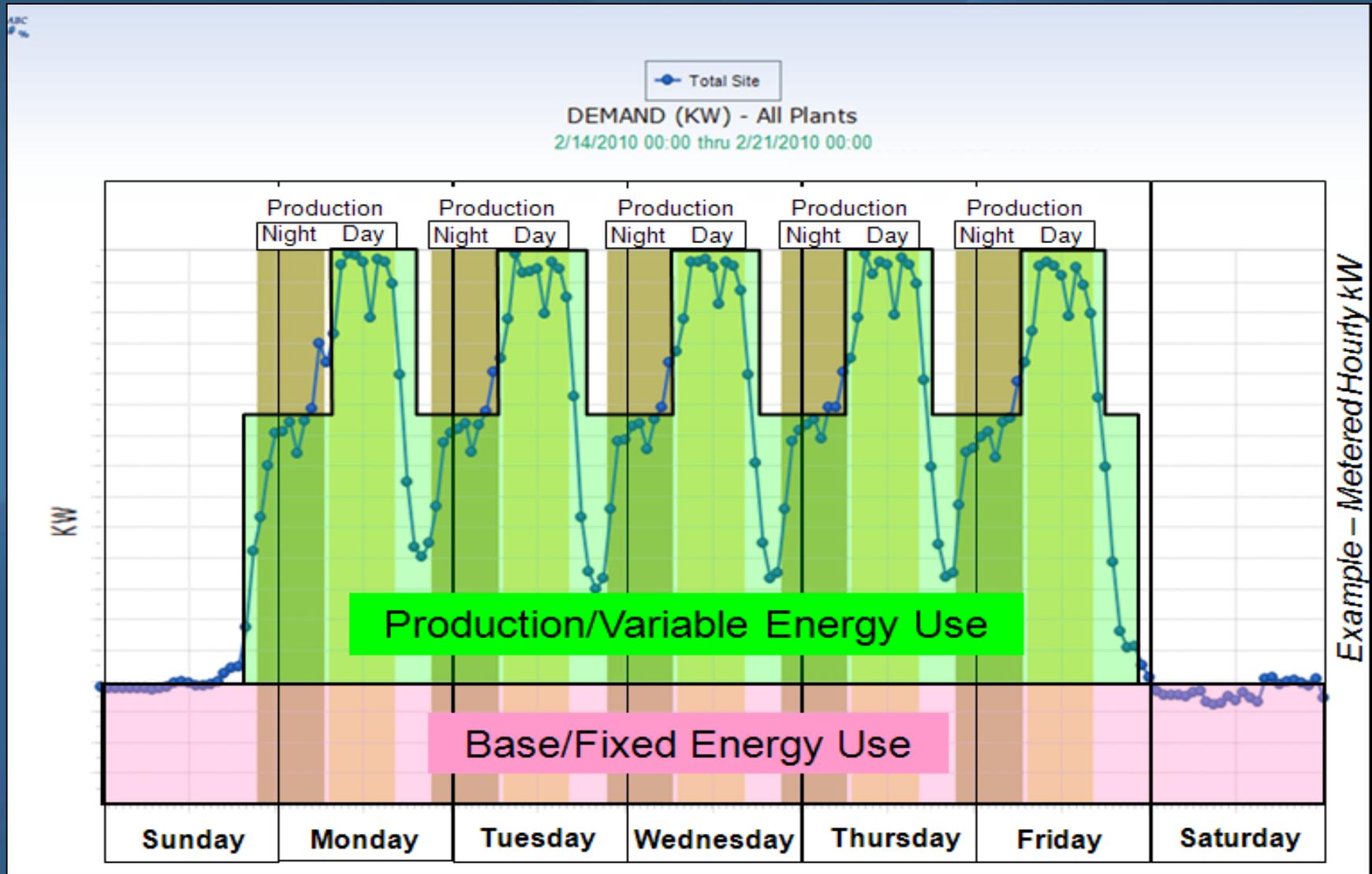
=NON-PROD ALARM

312	496
38.6%	61.4%
Feeder EN-101	Feeder EN-102

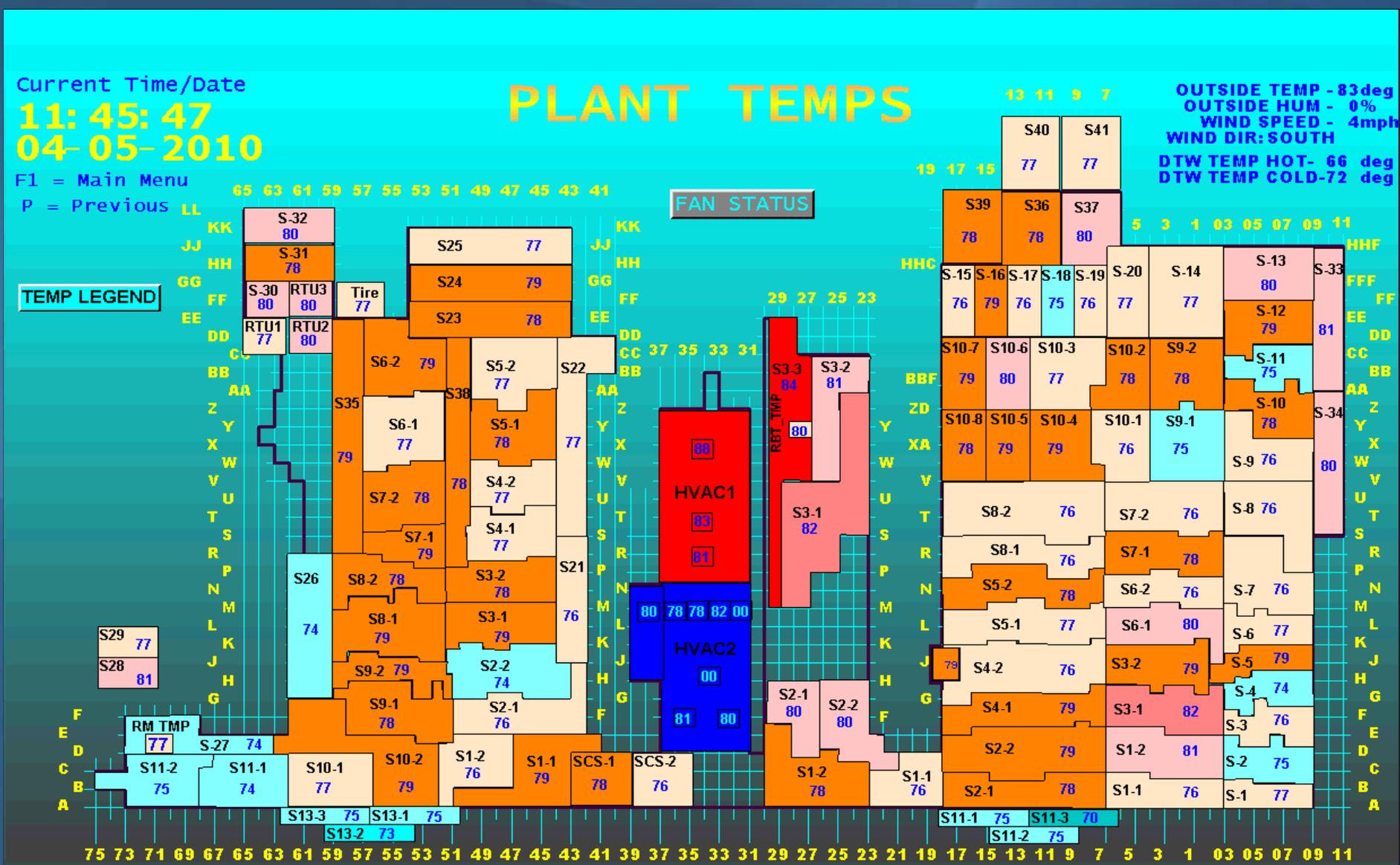
Real-Time Data



Metering, Monitoring & Managing



Metering, Monitoring & Managing



Real-Time Decision Making

Select Shift
8 Hour Weekday

System 1 Startup Screen 12:00:00

Frame Oven

SET **START**

19:00

BYPASS OFF
IN SHUTDOWN
TEMP SETBACK

MCR REMOTE

DAMPER

FANS

PURGING

COMPLETE

BURNER **AUTO**
START **START**

READY TO
IGNITE

BURNERS

C/B E-Coat Oven

SET **START** HELP

19:00

BYPASS OFF
IN SHUTDOWN
TEMP SETBACK

MCR REMOTE

DAMPER

FANS

PURGING

COMPLETE

BURNER **AUTO**
START **START**

READY TO
IGNITE

BURNERS

Deadner Oven

SET **START**

20:10

BYPASS OFF
IN SHUTDOWN
TEMP SETBACK

MCR REMOTE

DAMPER

FANS

PURGING

COMPLETE

BURNER **AUTO**
START **START**

READY TO
IGNITE

BURNERS

Prime Oven

SET **START**

19:00

BYPASS OFF
IN SHUTDOWN
TEMP SETBACK

MCR REMOTE

DAMPER

FANS

PURGING

COMPLETE

BURNER **AUTO**
START **START**

READY TO
IGNITE

BURNERS

System 1 Week Day Start Up

Week Of _____

Sched	8hr	9hr		Day 2	Day 3	Day 4	Day 5	Day 6
6:00	5:00	Check Masking						
6:00	5:00	Sludge Pit	Start					
6:00	5:00	TC-1 Oven	Master Start/Cnv Byps.					
6:00	5:00	TC-1 ASH	Start					
6:10	5:10	TC-1 Oven	Burner Start					
7:00	6:00	Frame Oven	Master Start/Cnv Byps.					
7:20	6:20	TC-2 ASH	Start					
7:20	6:20	TC-2 Oven	Master Start/Cnv Byps.					
7:30	6:30	WFS FP1-1,2,3,4	Start					
7:30	6:30	TC-2 Oven	Burner Start					
7:30	6:30	Prime Oven	Master Start/Cnv Byps.					
7:45	6:45	E-Coat Oven	Master Start/Cnv Byps.					
7:50	6:50	Prime ASH	Start					
8:30	7:30	PD1-1,2,3,4 O/H Cnv	Start					
8:30	7:30	PD1-5,6,7,8 O/H Cnv	Start					
8:30	7:30	WBS/WCS Cnv	Start					
8:40	7:40	TC-1 Conveyor	Start					
8:40	7:40	TC-2 Conveyor	Start					
8:45	7:45	ASH Humidities	check					
8:45	7:45	Deadner Oven	Master Start/Cnv Byps.					
8:45	7:45	DS 1&2 Kilo Ex	Start					
8:45	7:45	DS-1 Deadner ASH	Start					
8:45	7:45	DS-2 Sealer ASH	Start					
8:45	7:45	DS-2 TT ASH	Start					
8:55	7:55	Deadner Oven	Burner Start					
9:15	8:15	Deadner Cooling Tunnel	Start					
9:30	8:30	E-Coat Oven CNV	Start					
9:45	8:45	Wax ASH	Start					
10:00	9:00	Check Masking						
10:00	9:00	All Ovens	Remove Cnv Byps.					
2:30am		Service Parts Phos	Start					
6:30am		Service Parts Oven	Start					
7:30am		Service Parts Cnv	Start					
8hr Start Time prep 9:15pm-6:00am appl 10:00pm-6:45am			9hr Start Time prep 8:15pm-6:00am appl 9:00pm-6:45am					

rev 01/18/2007 PART STARTUP SHUTDOWN SCHEDULES.XLS

Metering, Monitoring & Managing

Current Time/Date

11:43:37

4 -5 -2010

F1 = MAIN MENU



Air Handler Status

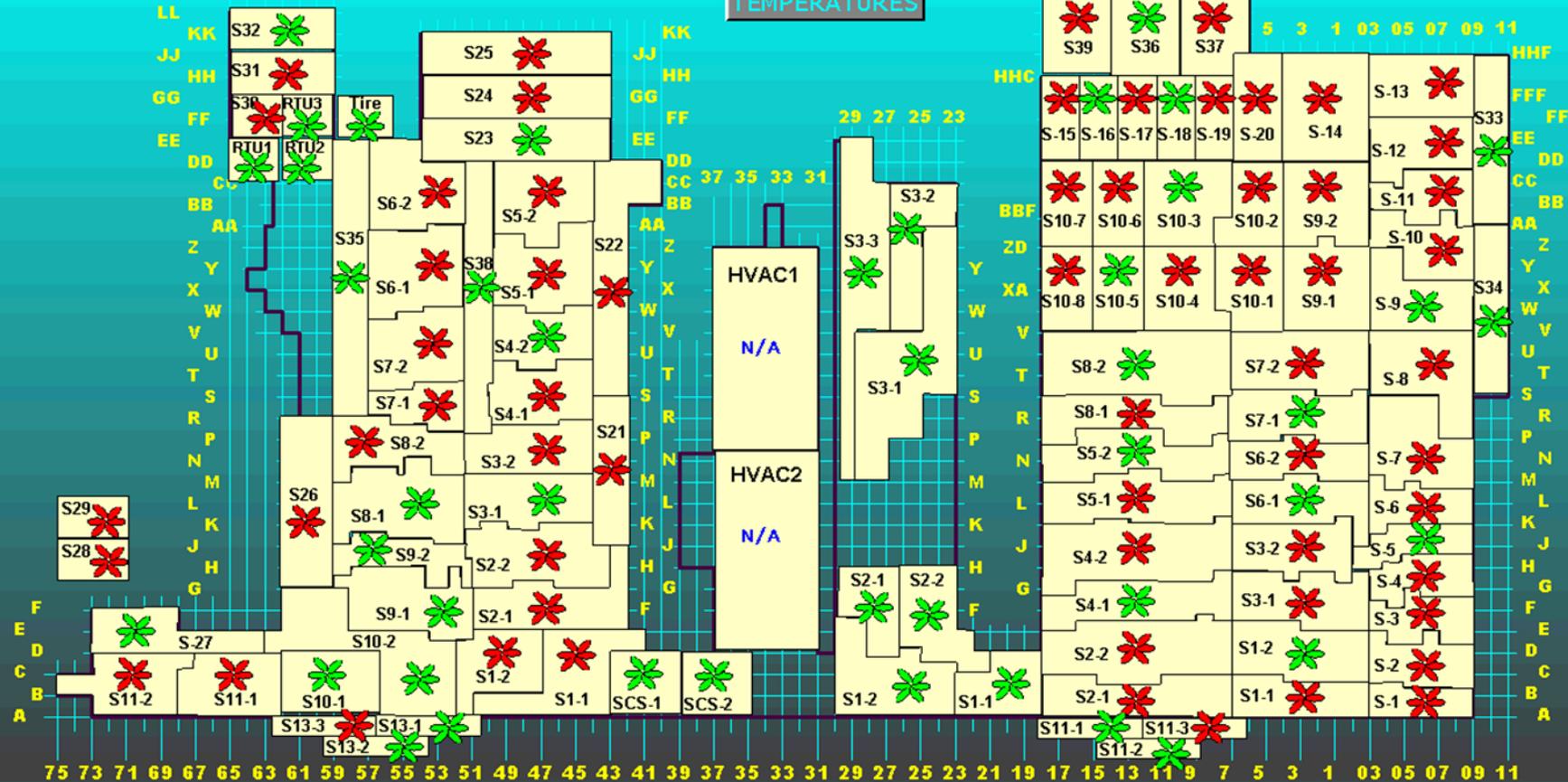
13 11 9 7

OUTSIDE TEMP - 83 deg
OUTSIDE HUM - 0%
WIND SPEED - 5mph
WIND DIR: SOUTH
DTW TEMP HOT- 66 deg
DTW TEMP COLD-72 deg

65 63 61 59 57 55 53 51 49 47 45 43 41

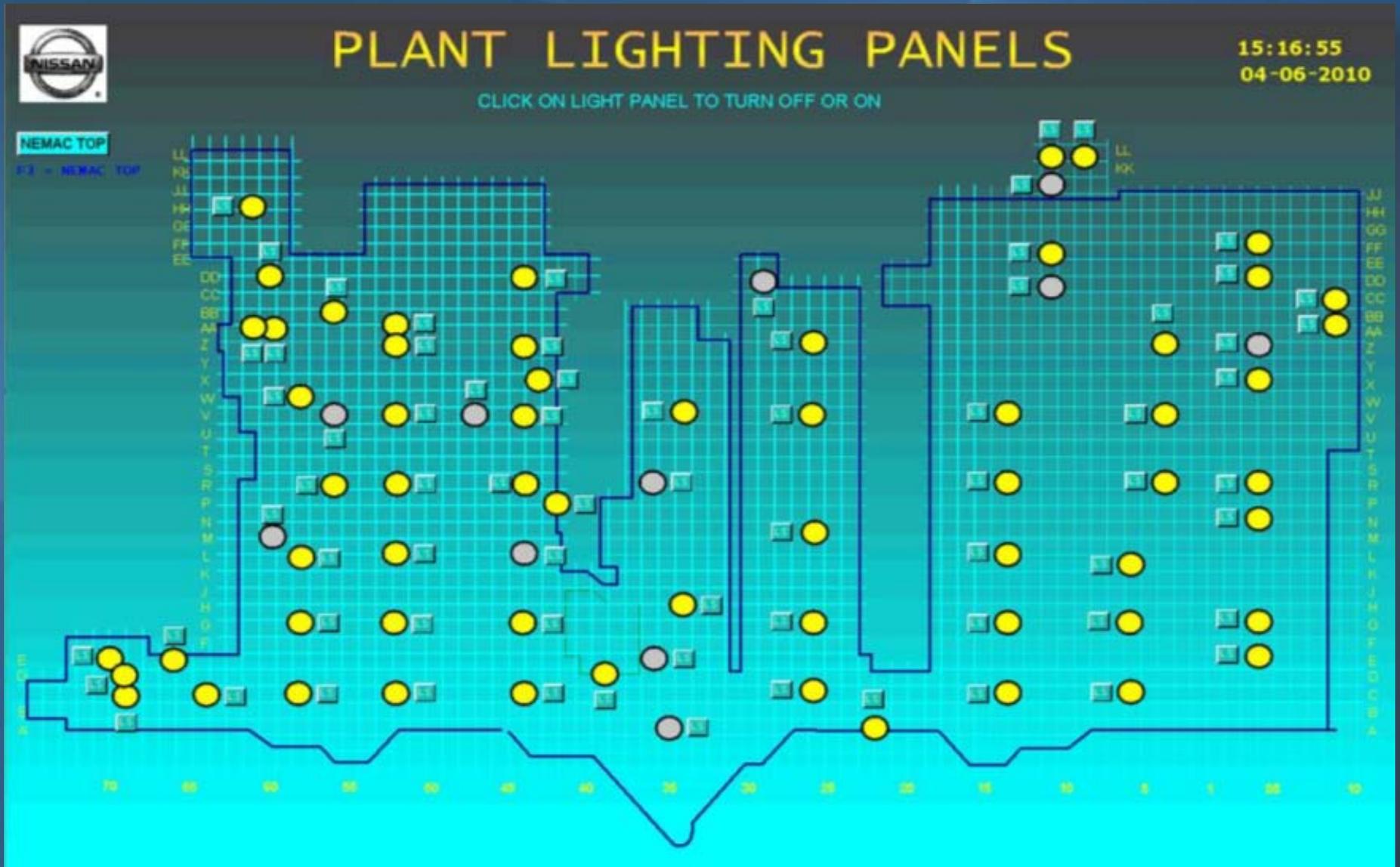
TEMPERATURES

19 17 15



75 73 71 69 67 65 63 61 59 57 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 9 7 5 3 1 03 05 07 09 11

Metering, Monitoring & Managing



KPI - Weekly Performance

Plant Electricity Use Scorecard

	Weekend Use
Stamping	●
Body	●
Paint 1	●
Paint 2	●
Paint 3	X
Trim	X

Previous Week (Ending 10/10)

	Weekend Use
Stamping	●
Body	●
Paint 1	●
Paint 2	●
Paint 3	◎
Trim	X

Current Week (Ending 10/17)

Where:

◎ = Best (< 5% Base Use)	▲ = between 5% - 8% Base Use
● = within 5% Base Use	X = > 8% Base Use

How are Results are Reported?

The Data:

- Transparent – Open To All
 - Web Based / Graphical
 - Export to Excel
- Real Time
- Historical
- Day / Week / Month / Year

Users of the NEMAC system

- Executives
- Operations Management
- Manufacturing
- Engineering
- Plant Maintenance
- Product Quality
- Finance
- In-House Suppliers

Verification & Validation Through Metering "Sample Projects"

- Variable Frequency Drives on ASH Supply & Exhaust Fans
- Florescent "High Bay" Lighting in all 3 Paint Systems
- Oven Controls upgrade in System 1
- Variable Frequency Drives on E-Coat Pumps System 1 & 2
- New Controls on the Air Drier for System 2
- Task Lighting addressed with Timer Switches
- Enthalpy Control logic in Air Supply Houses
- Air Cascading into Paint Process Booths
- Elimination of Daily Test Units into Color Booths
- Employee Engagement in Air Supply House Management
- "Air Drier" to Dew Point Sensor from a Timer Control
- Space Temps set to seasonal Set-Points
- Air Leak repair program initiative
- Hourly KW Alarm monitoring

Managing Energy with Data Analysis

**“You can’t manage –
-what you can’t measure!”**

Measurement Enables.....

- Energy strategies
- Setting effective KPIs
- Benchmarking capability
- Measurement of performance

Nissan Energy Management System – Lessons Learned

Know your internal stakeholders

- Understand the energy metrics of your business
- Understand how your business is accountable for energy

Evolve your Energy Management system

- Start with a subset of reports and graphics
- Select key areas where information can be easily validated
- Get immediate user feedback through the entire process; “What do you think?”

Earn the trust of Executive Management in your Energy Management system

- Credibility with your Energy Management System will allow for future energy project approval and continued growth

Questions

*ENERGY STAR® Energy Management
Networking Web Conference*

Steve Smith, Controls Engineering Manager
Wade Royal, Energy Engineer

March 23, 2011

- Questions & Comments
 - # 6 to un-mute phone
 - * 6 to mute

Upcoming Web Conferences



April – Leading Energy Management Programs

May – Smart Grid Update

June – Cool Energy Savings

July – Best Practice & Project Replication
Strategies

Register online at:

energystar.webex.com/meetings

Thank you!