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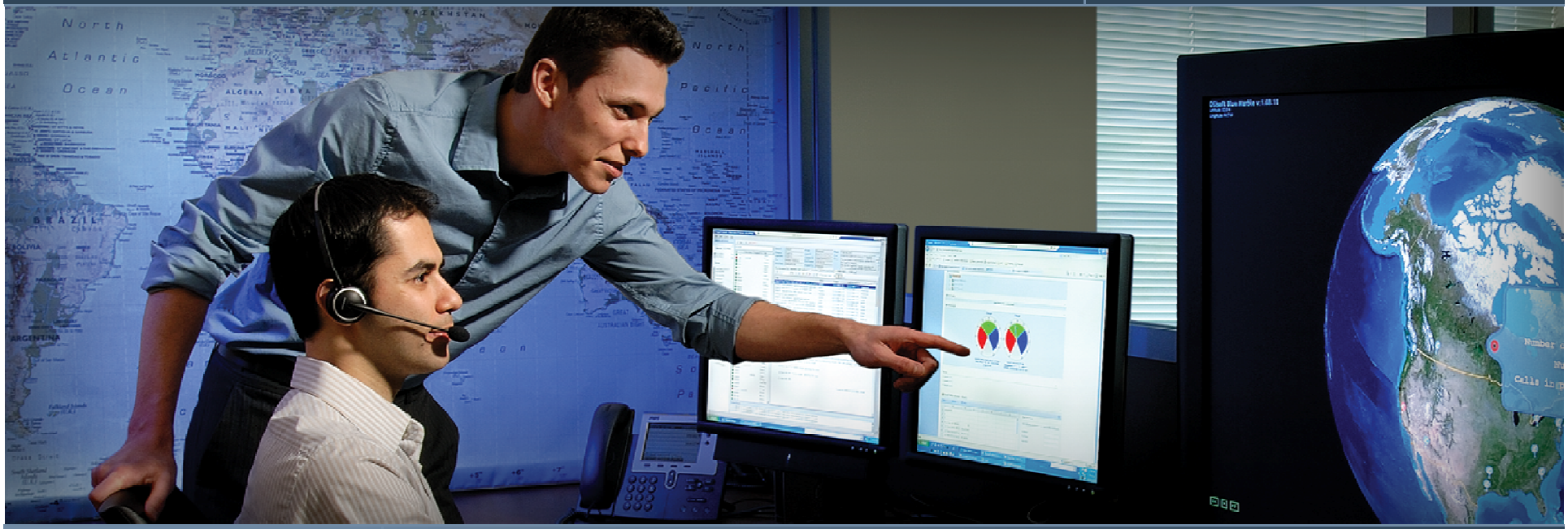
Regional Seminar Series

SMART PAPERS



Distributive Generation / Micro Gridding

Dan Maheu
President & COO
SMART Papers Holdings LLC

October 7, 2009

Empowering Business in Real Time.

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What is Distributive Generation?

SMART Power

SMART Power/SMART Paper

- SMART Power Business produces steam from coal and generates electricity through a steam turbine system.
- Supplies SMART Paper manufacturing operation with steam & electricity.
- Produces electricity for sale into the Grid
- SMART Power charges SMART Paper for electric and steam.
- SMART Power generates revenue by selling electricity into the grid through MISO (Midwest Independent Systems Operators) node (SMART.Gen and SMART.Load)
- Registered MISO participant for electric transactions (effective 12/15/2008).
- An Ohio PUCO registered CRES (Competitive Retail Energy Supplier) (effective 6/1/2009)
- Licensed to purchase wholesale electric from MISO and sell it to its customers, currently Paper.
- Power adjusts and reacts to the real time price at its MISO node to adjust generation levels (sell to grid, zero with grid, or purchase from grid).

FERC

- FERC power marketing application submitted, into FERC review process.
- Required for any significant expansion of Grid supply.
- Power expects to receive the license during 3rd quarter 2009.

SMART Power Business Description

Equipment Overview

Boilers

2 coal fired boilers.

Total permitted heat input to the combined units is 603 MMBTU/hr.

The total steam and total electrical needs of Paper are met with the steam plant operating at about 170,000 #/hr.

The additional is used to respond to favorable pricing on the Grid producing up to the current Tie Transformer limit of 20 MW per hr of electric beyond plant needs.

Power can also pull the steam plant back to minimum load of 120,000 #/hr to supply total Paper steam need, reduce electric generation and allow the purchase of 3 to 4 MW/hr from the Grid if market prices are lower than condensed generation costs adjusted for CRES fees.

SMART Power Business Description

Electric Grid Interface

Power is connected directly at 69 KV transmission level and owns all assets through the transformer to 69 KV. By law the 69 KV switch is owned by the utility (Duke) as it is part of the public transmission system.

SMART Paper Energy Loads

The electrical station load for Paper is about 6 MW//hr and the Power parasitic load is about 1.7 MW/hr supplying paper rising to 2.5 MW/hr at maximum electric generation and dropping to 1.3 MW/hr when purchasing from Grid.

Paper is charged monthly by Power for its actual electric consumption and actual process steam consumption.

Grid Sales

Power participates in MISO in the real time market, the day-ahead market and routinely evaluates Bilateral agreements. Power has not yet elected to participate in MISO's recently established Ancillary Services segment.

Power is also open to and presenting opportunities for other clients with electrical, steam or other utility needs to locate on its site and be served by Power.

Key to Making Distributive Generation Work

Real Time Data

- Assembled into useful operator interfaces
- Management monitoring
- Business evaluation

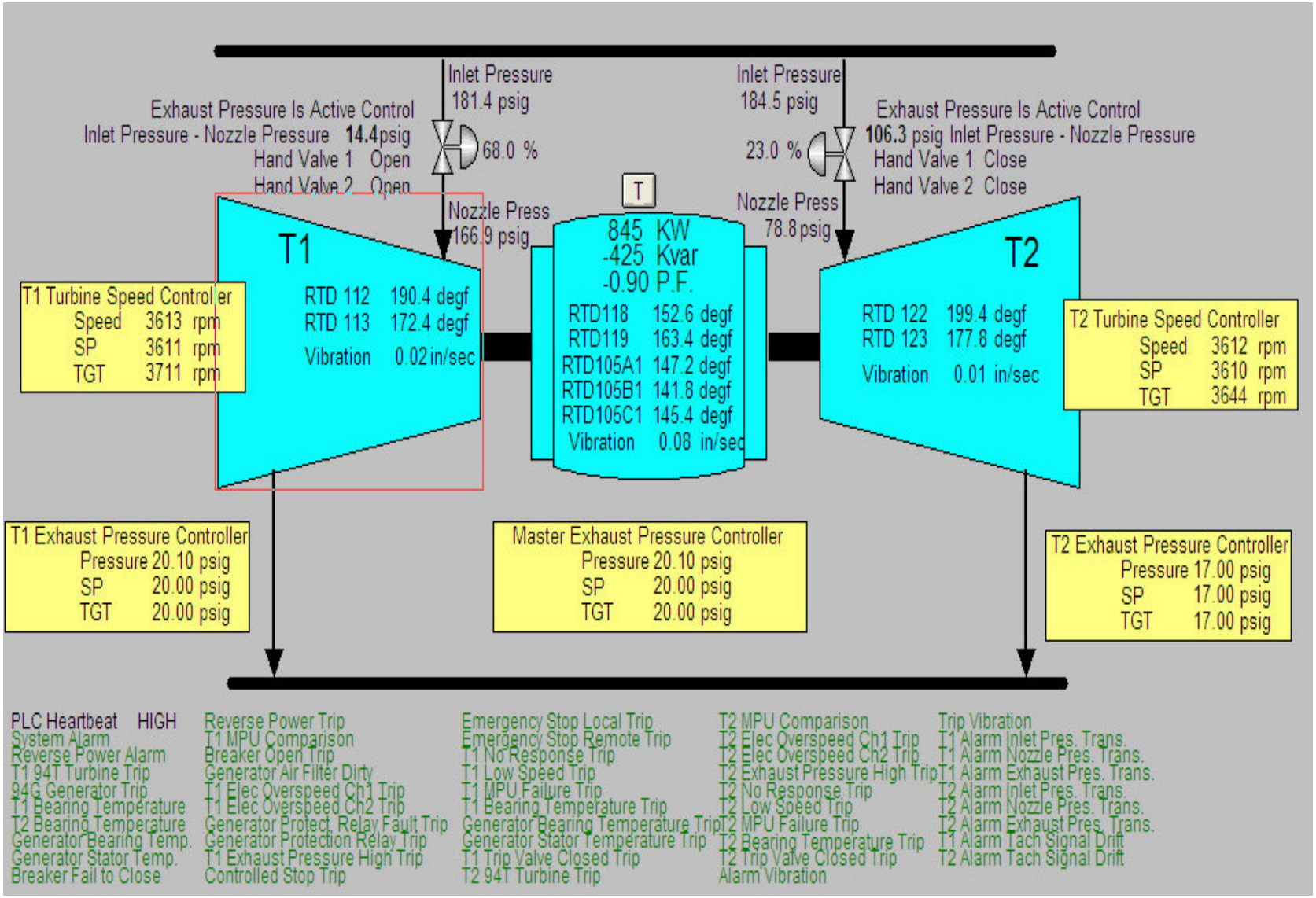
From Multiple Sources

- Internal
- External

What is the role of PI for SMART Power?

Very Typical Uses of PI

Turbine Generators



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Condensing Turbines

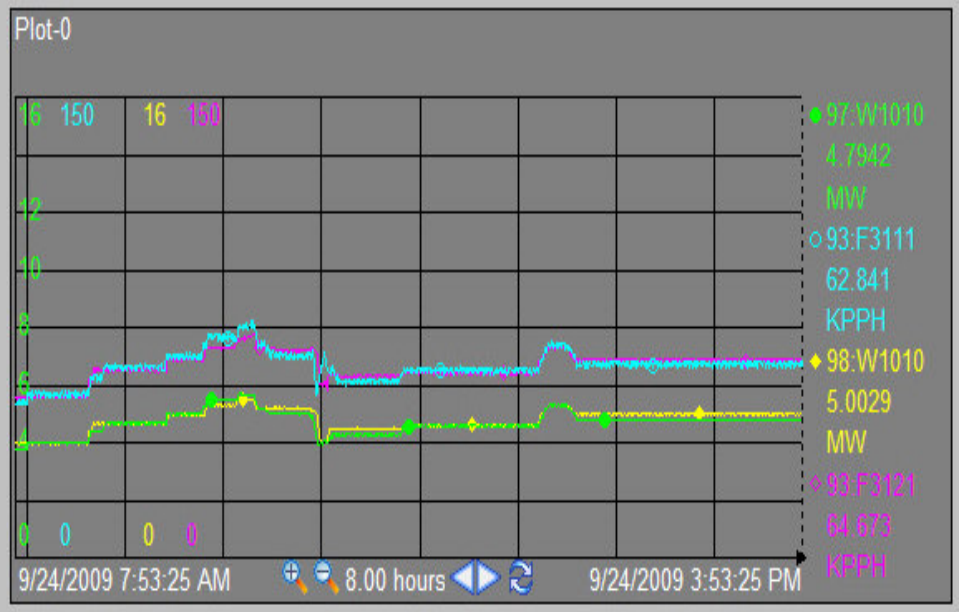
Steam Supply Pressure 183.6 psig

	TG7		TG8	
Power Gen	4.79	MW	5.00	MW
Speed	4519	rpm	4519	rpm
Steam Flow	62.8	KPPH	64.7	KPPH
Steam Inlet P	181.4	psig	181.5	psig
Steam Inlet T	531.4	degf	533.9	degf
Surface Condenser				
Level	8.97	inches	9.01	inches
Pressure	-27.22	inches Hg	-27.29	inches Hg
Temperature	103.4	degf	100.7	degf
Cooling Water Supply				
Pressure	30.5	psig	30.4	psig
Temperature	84.4	degf	84.3	degf
Cooling Water Return				
Pressure	10.92	psig	10.44	psig
Temperature	99.5	degf	99.9	degf
Ejector				
Steam Supply Pressure	183.3	psig	183.1	psig
Condensate Supply Temp	106.0	degf	105.0	degf
Condensate Return Temp	109.7	degf	109.3	degf

Cooling Tower and BOP

to Cooling Tower

Basin Level	94.0	inches
Makeup Water Flow	593.0	gpm
Outlet Water Pressure	31.9	psig
Outlet Water Temp.	84.5	degf
Cooling Water		
pH	8.08	pH
ORP	564.6	mV
Conductivity	2260	umhos
Blowdown Flow	122.8	gpm



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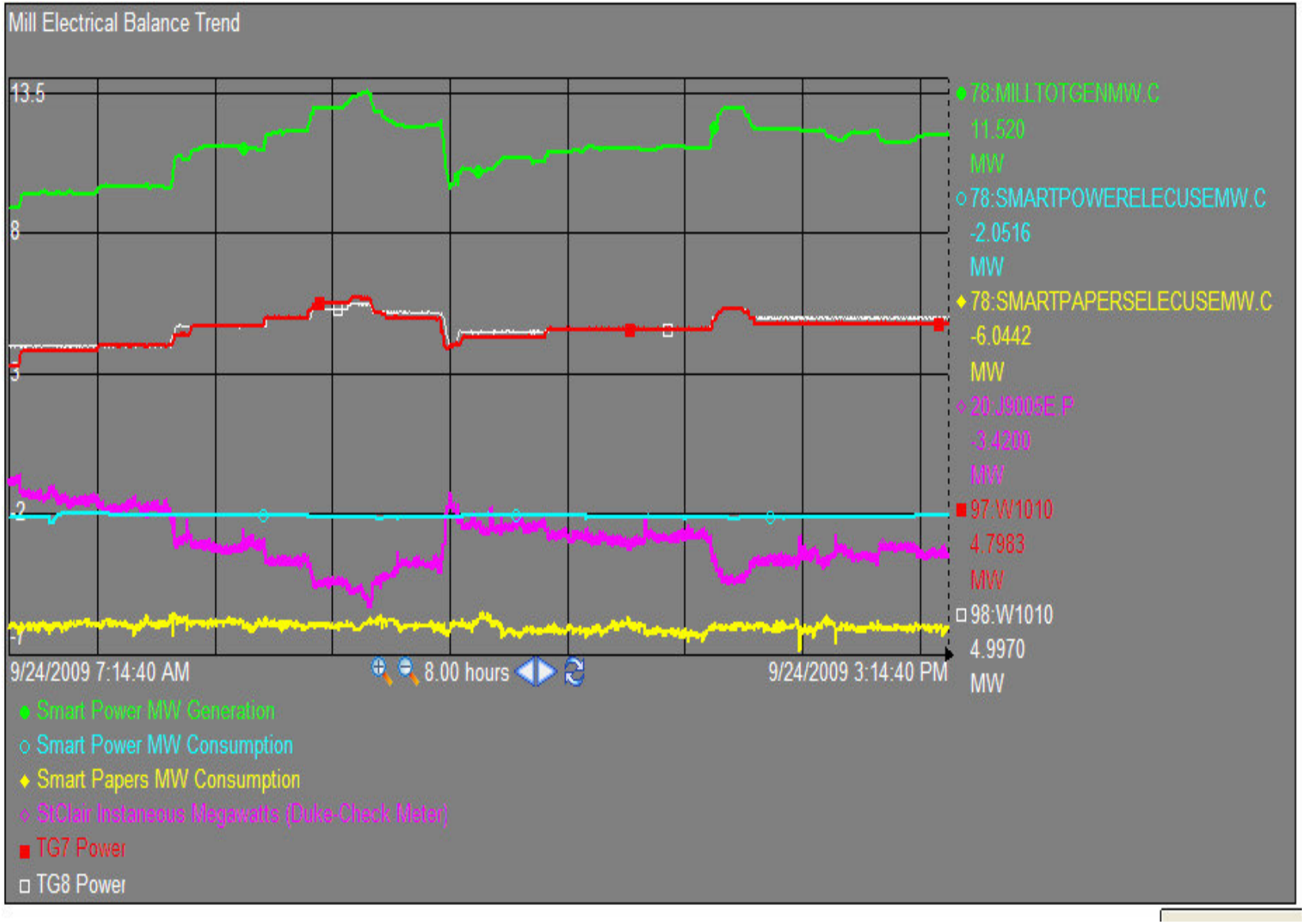
Electrical Balance Trends



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Less Typical Uses of PI

Operator Real Time Data from the Grid Interface

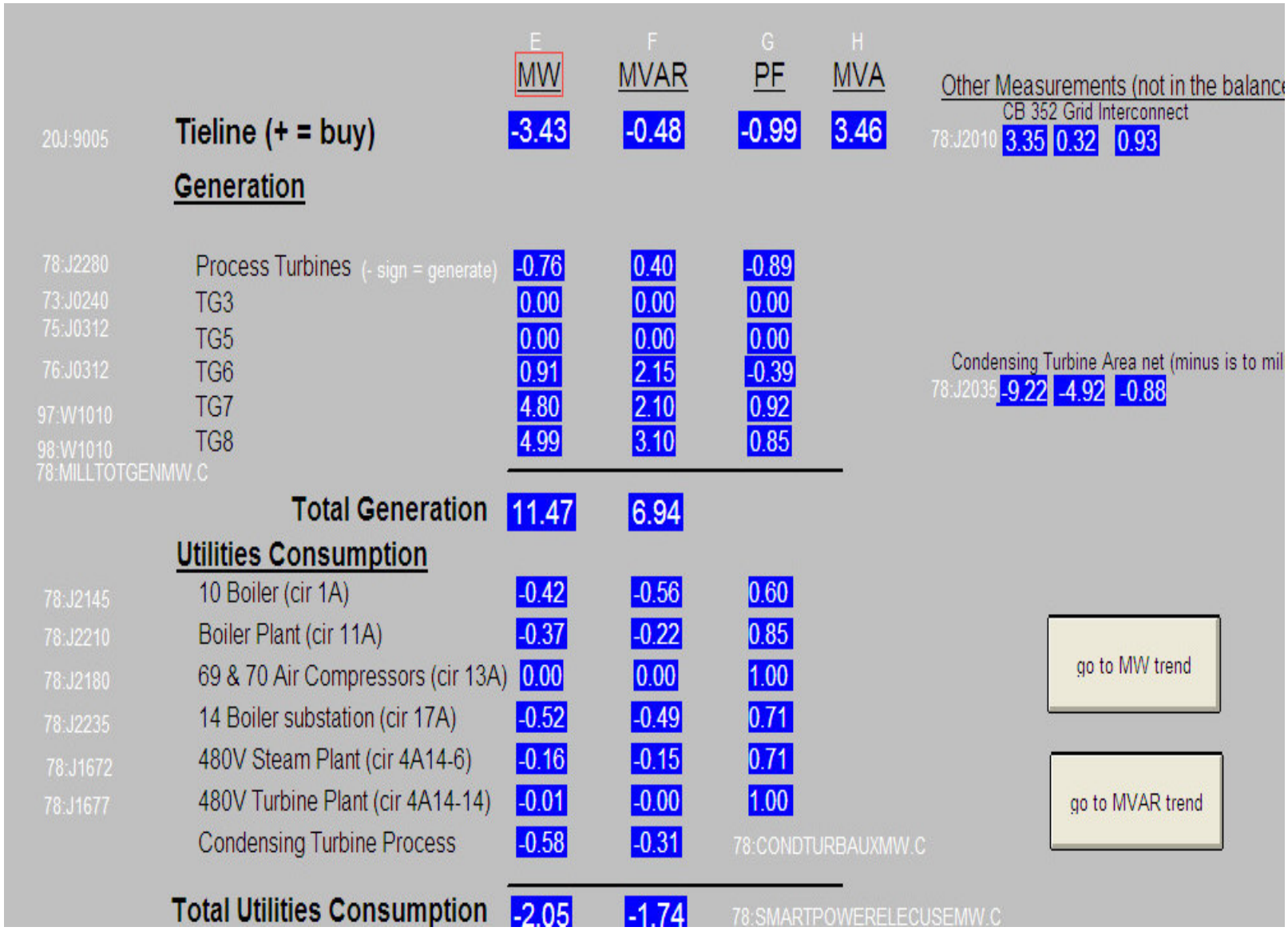
- MW, MVAR, PF, MVA

Operator Must Control

- MW, MVAR

Sources: Plant Internal, Utility (wireless)

Power Factor & VAR Control



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Operator Real Time Data of Power Pricing at the Grid Node

Key Data

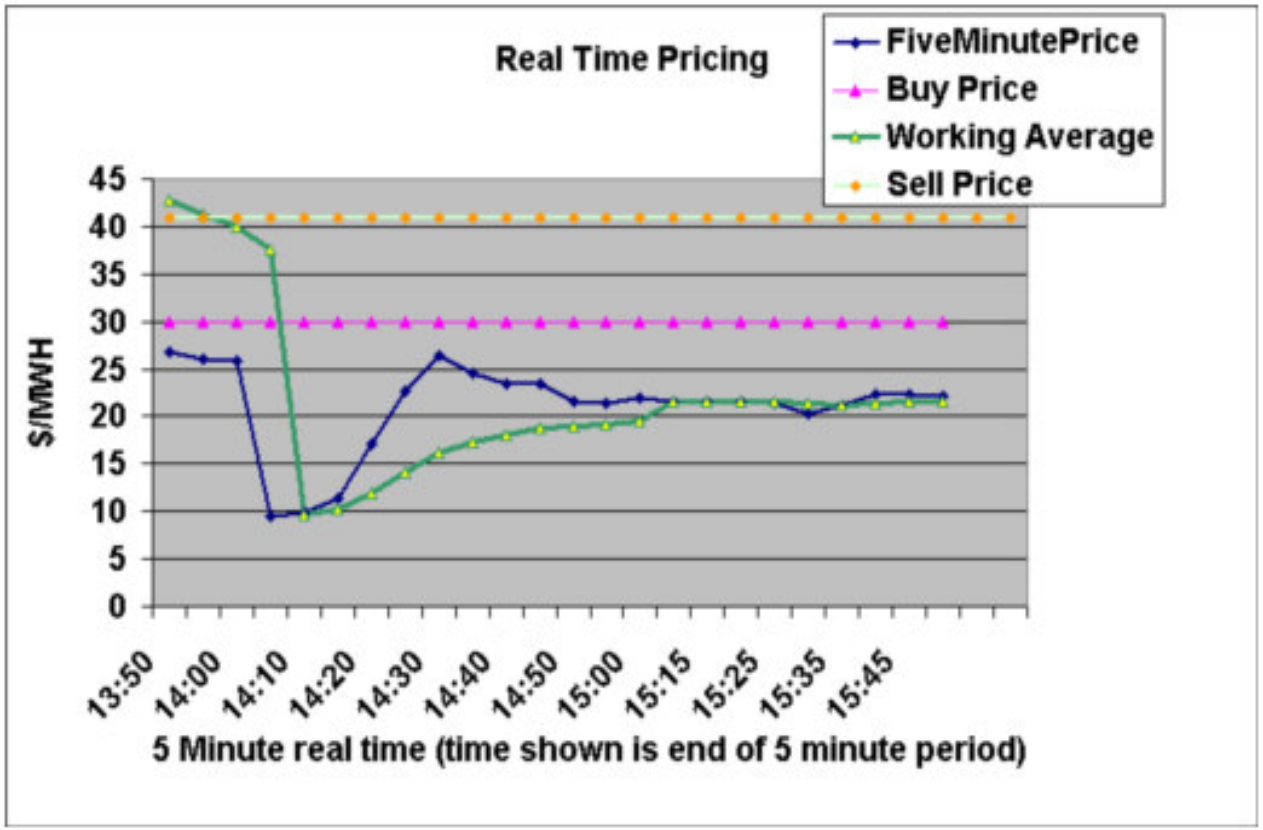
- 5 Minute Price
- Average for the Hour to Date
- Working Average
- Decision Points

Sources: Power Marketer, ISO via Internet

SMART PAPERS

Reporting System

Thursday, September 24, 2009



Average Price This Hour
$21.62 Thru 15:55

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Critical Management Information

Summary Level Daily, MTD

Power KPIs

Power Electrical Detail

Power Steam Detail

Power Grid Revenue

- Calculates activity each hour
  (Data from utility meter, power marketer, ISO)

Report Run Date: 9/25/2009 - 2:28:06PM

POWER Business KPI

September 24, 2009

Revenue		Daily	MTD
Sold Power	MW (Total)	55	755
	Avg $ / MW		
	Rev Total ($)		
Power To Paper	MW (Total)	133	2,591
	Price		
	Rev ($)		
Power Purchases	MW (Total)	20	1,044
	Avg $ / MW		
	Cost ($)		

Generation		MW	MW		MW / HR	MW / HR
#6	MW	20.74	766.55	Avg / Hr	0.86	1.33
#7	MW	81.46	1,118.56	Avg / Hr	3.39	1.94
#8	MW	93.48	982.57	Avg / Hr	3.89	1.71
#3	MW	0.00	0.00	Avg / Hr	0.00	0.00
Process Turbines	MW	18.64	243.45	Avg / Hr	0.78	0.42

	k #	k #		k # / HR	k # / HR
Boiler 10	2,716.10	69,410.30	Steam / Hr	113.17	120.50
Boiler 14	1,675.28	1,883.47	Steam / Hr	69.80	3.27

			Condenstate Loss	k Gal	k Gal
Condensate Return %	77.13%	71.17%	Boiler 10	45.98	795.30
City Water - MakeUp (k Gal)	125.08	2,881.54	Boiler 14	1.70	9.90
Boiler 10 Blowdown %	11.77%	11.01%	Boilers 10&14	47.68	805.20
Boiler 14 Blowdown %	2.17%	22.66%	Process	77.40	2,076.34
Total Blowdown %	9.51%	11.20%			
River Water to Prodcess (k Gal)	2,064.28	49,586.84			

	Total Daily	Total MTD	Average Daily	Average MTD
Steam	k #	k #	k # / HR	k # / HR
Total	4,401.26	71,257.06	183.39	123.71
To Power	1,043.01	21,204.45	43.46	36.81
To Paper	993.62	21,264.38	41.40	36.92
To Paper Price $				
To Paper Cost ($)				

	Daily	MTD
City Water Filter		
City Water Basin		
City Water Turbine		
City Water WWTP		

	k # Steam / MW	
k # Steam / MW	130.96	90.55
k # Steam / MW	13.68	14.97
k # Steam / MW	13.26	14.84
k # Steam / MW	0.00	0.00

# Steam / # Coal	9.80	12.43
# Steam / # Coal	0.00	0.00

Total Coal Burn- Tons	138.60	2,792.70

Parasitic Load	Daily %	MTD %
Electric	21.57	25.98
Steam	23.70	29.76

Report Date: 9/25/2009 2:43:26PM

MW Electrical Meter Balance
Period Totals

September 01, 2009
Through
September 24, 2009

	MW	Daily Average	Hourly Average
Hours Bought (+)	1,044	43.50	1.81
Hours Sold (-)	-755	-31.46	-1.31
Tieline (+ = Buy)	289	12.04	0.50
Generation			
TG3	0.00	0.00	0.00
TG5	0.00	0.00	0.00
TG6	766.55	31.94	1.33
TG7	1,118.56	46.61	1.94
TG8	982.57	40.94	1.71
Process Turbines	-243.45	-10.14	-0.42
Total Generation	3,110.64	129.61	5.40
Utilities Consumption (- = Consumption)			
10 Boiler (cir A)	-240.86	-10.04	-0.42
Boiler Plant (cir 11A)	-171.59	-7.15	-0.30
69 & 70 Air Compressors (cir 13A)	-2.89	-0.12	-0.01
14 Boiler substation (cir 17A)	-29.75	-1.24	-0.05
480V Steam Plant (cir 4A14-6)	-85.88	-3.58	-0.15
480V Turbine Plant (cir 4A14-14)	-3.93	-0.16	-0.01
Condensing Turbine Process	-273.52	-11.40	-0.47
Total Utilities Consumption	-808.08	-33.67	-1.40
Process Consumption by Difference	-2,591.56	-107.98	-4.50

* Elapsed Days Used For Daily Average = 24

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Report Date: 9/25/2009 2:48:16PM

Steam Meter Balance
Period Totals

September 01, 2009
Through
September 24, 2009

	Steam	Daily Average	Hourly Average
Generation			
10 Boiler	69,410.30	2,892.10	120.50
14 Boiler	1883.47	78.48	3.27
Total Generation	71,257.06	2,969.04	123.71
Consumption			
Ash System	2,306,774.01	96,115.58	4,004.82
Feed Water Heater	8,343,104.27	347,629.34	14,484.56
Deaerator Tank	4,991,326.40	207,971.93	8,665.50
Sedimentation Tank	4,747,988.02	197,832.83	8,243.03
Power House Heat	717,174.43	29,882.27	1,245.09
Total Smart Power Steam Use	21,204.45	883.52	36.81
Condensed			
3 Turbine	-25.19	-1.05	-0.04
7 Turbine	16,746.79	697.78	29.07
8 Turbine	14,584.72	607.70	25.32
Total Smart Power Steam Condensed	31,418.35	1,309.10	54.55
Total Smart Papers Steam Use	21,264.38	886.02	36.92

* Elapsed Days Used For Daily Average = 24

* Recorded Hours Used For Hourly Average = 576

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Report Date: 9/25/2009 2:50:01PM

POWER Grid Revenue Purchased Summary

Date	MWH Hours Sold	Revenue Sold MHW	Average Hour Sold Price	MWH Hours Purchased	MISO Est Cost MWH	CRES Cost	Toal Cost	MISO Average Estimated Cost Per Hour	Daily Net - + = Revenue
09/01/2009	0			87					
09/02/2009	45			67					
09/03/2009	2			49					
09/04/2009	0			72					
09/05/2009	38			7					
09/06/2009	56			0					
09/07/2009	62			0					
09/08/2009	103			0					
09/09/2009	65			0					
09/10/2009	51			9					
09/11/2009	25			50					
09/12/2009	64			52					
09/13/2009	32			63					
09/14/2009	7			85					
09/15/2009	67			50					
09/16/2009	39			69					
09/17/2009	3			69					
09/18/2009	23			58					
09/19/2009	8			30					
09/20/2009	2			31					
09/21/2009	0			48					
09/22/2009	3			50					
09/23/2009	5			78					
09/24/2009	55			20					
Period Totals									

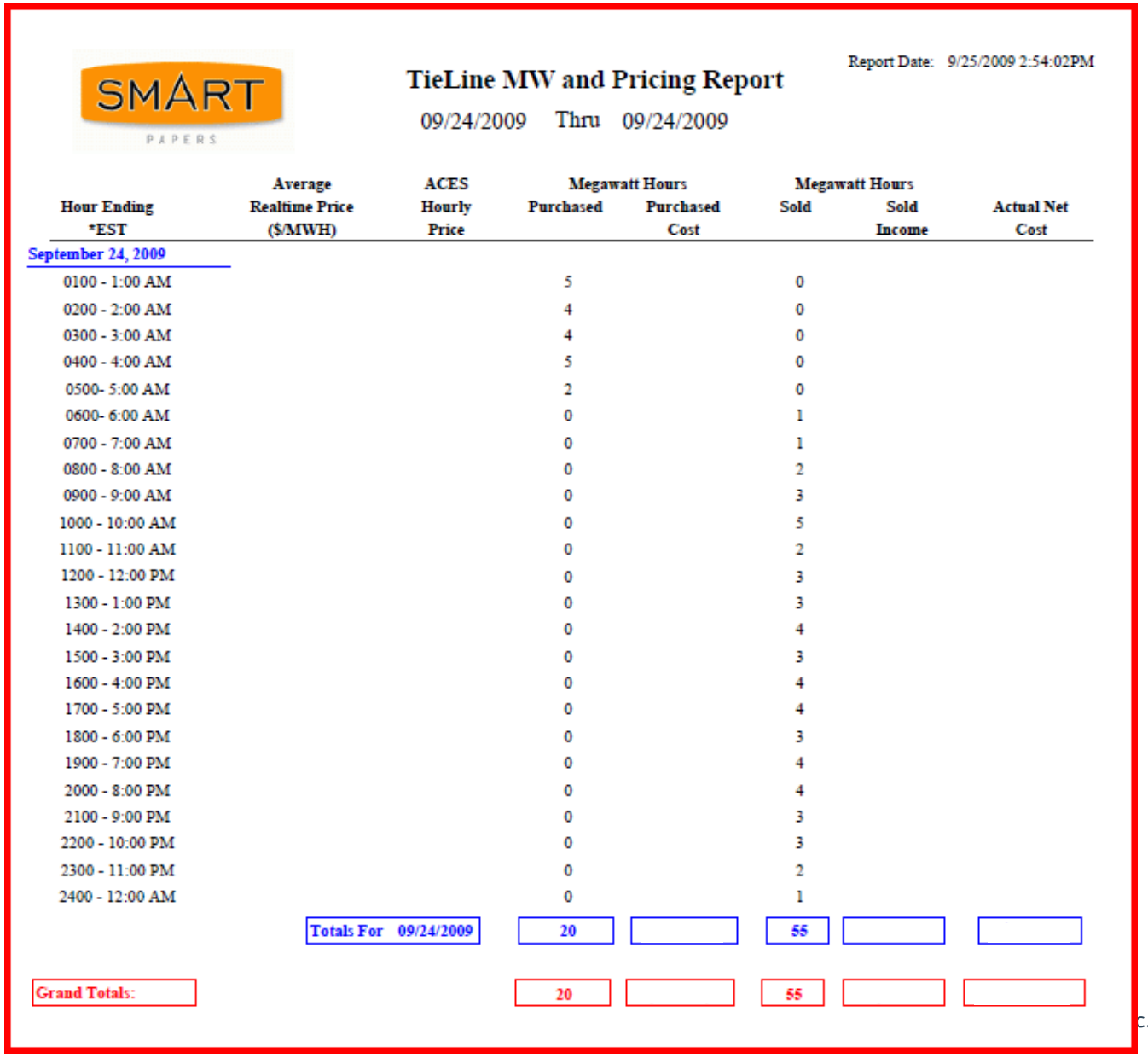
Report Date: 9/25/2009 2:52:12PM

MWH By Hour Ending

09/24/2009 Thru 09/24/2009

* Time	Inst Station	#6 Generator	#3 Generator	Inst Grid (- = sell)	Meter Buying MWH	Meter Selling MWH	Station Load
9/24/2009							
0100 - 1:00 AM	5.155	0.645	0.000	4.596	5	0	4.719
0200 - 2:00 AM	5.241	0.686	0.000	4.231	4	0	5.645
0300 - 3:00 AM	4.917	0.696	0.000	4.484	4	0	4.686
0400 - 4:00 AM	5.180	0.763	0.000	4.691	5	0	4.696
0500- 5:00 AM	5.455	0.792	0.000	1.168	2	0	5.763
0600- 6:00 AM	1.960	0.759	0.000	-0.074	0	1	2.792
0700 - 7:00 AM	0.685	0.781	0.000	-1.138	0	1	-0.241
0800 - 8:00 AM	-0.357	0.796	0.000	-2.216	0	2	-0.219
0900 - 9:00 AM	-1.420	0.786	0.000	-3.600	0	3	-1.204
1000 - 10:00 AM	-2.814	0.896	0.000	-4.079	0	5	-2.214
1100 - 11:00 AM	-3.182	0.945	0.000	-2.437	0	2	-4.104
1200 - 12:00 PM	-1.492	0.896	0.000	-2.857	0	3	-1.055
1300 - 1:00 PM	-1.961	0.974	0.000	-3.620	0	3	-2.104
1400 - 2:00 PM	-2.645	0.934	0.000	-3.376	0	4	-2.026
1500 - 3:00 PM	-2.442	0.963	0.000	-3.422	0	3	-3.066
1600 - 4:00 PM	-2.459	1.034	0.000	-3.561	0	4	-2.037
1700 - 5:00 PM	-2.527	0.980	0.000	-3.698	0	4	-2.966
1800 - 6:00 PM	-2.718	0.841	0.000	-3.644	0	3	-3.020
1900 - 7:00 PM	-2.802	0.908	0.000	-3.977	0	4	-2.159
2000 - 8:00 PM	-3.069	0.878	0.000	-3.538	0	4	-3.092
2100 - 9:00 PM	-2.659	0.873	0.000	-2.948	0	3	-3.122
2200 - 10:00 PM	-2.075	0.874	0.000	-2.928	0	3	-2.127
2300 - 11:00 PM	-2.053	0.906	0.000	-2.254	0	2	-2.126
2400 - 12:00 AM	-1.348	0.960	0.000	-1.543	0	1	-1.094
Totals For 9/24/2009		20.569	0.000		20	55	
GRAND TOTALS:		20.569	0.000		20	55	

*NOTE Time has been normalized to Eastern Standard Time



SMART PAPERS

TieLine MW and Pricing Report

Report Date: 9/25/2009 2:54:02PM

09/24/2009 Thru 09/24/2009

Hour Ending *EST	Average Realtime Price ($/MWH)	ACES Hourly Price	Megawatt Hours Purchased	Purchased Cost	Megawatt Hours Sold	Sold Income	Actual Net Cost
September 24, 2009							
0100 - 1:00 AM			5		0		
0200 - 2:00 AM			4		0		
0300 - 3:00 AM			4		0		
0400 - 4:00 AM			5		0		
0500- 5:00 AM			2		0		
0600- 6:00 AM			0		1		
0700 - 7:00 AM			0		1		
0800 - 8:00 AM			0		2		
0900 - 9:00 AM			0		3		
1000 - 10:00 AM			0		5		
1100 - 11:00 AM			0		2		
1200 - 12:00 PM			0		3		
1300 - 1:00 PM			0		3		
1400 - 2:00 PM			0		4		
1500 - 3:00 PM			0		3		
1600 - 4:00 PM			0		4		
1700 - 5:00 PM			0		4		
1800 - 6:00 PM			0		3		
1900 - 7:00 PM			0		4		
2000 - 8:00 PM			0		4		
2100 - 9:00 PM			0		3		
2200 - 10:00 PM			0		3		
2300 - 11:00 PM			0		2		
2400 - 12:00 AM			0		1		
		Totals For 09/24/2009	20		55		
Grand Totals:			20		55		

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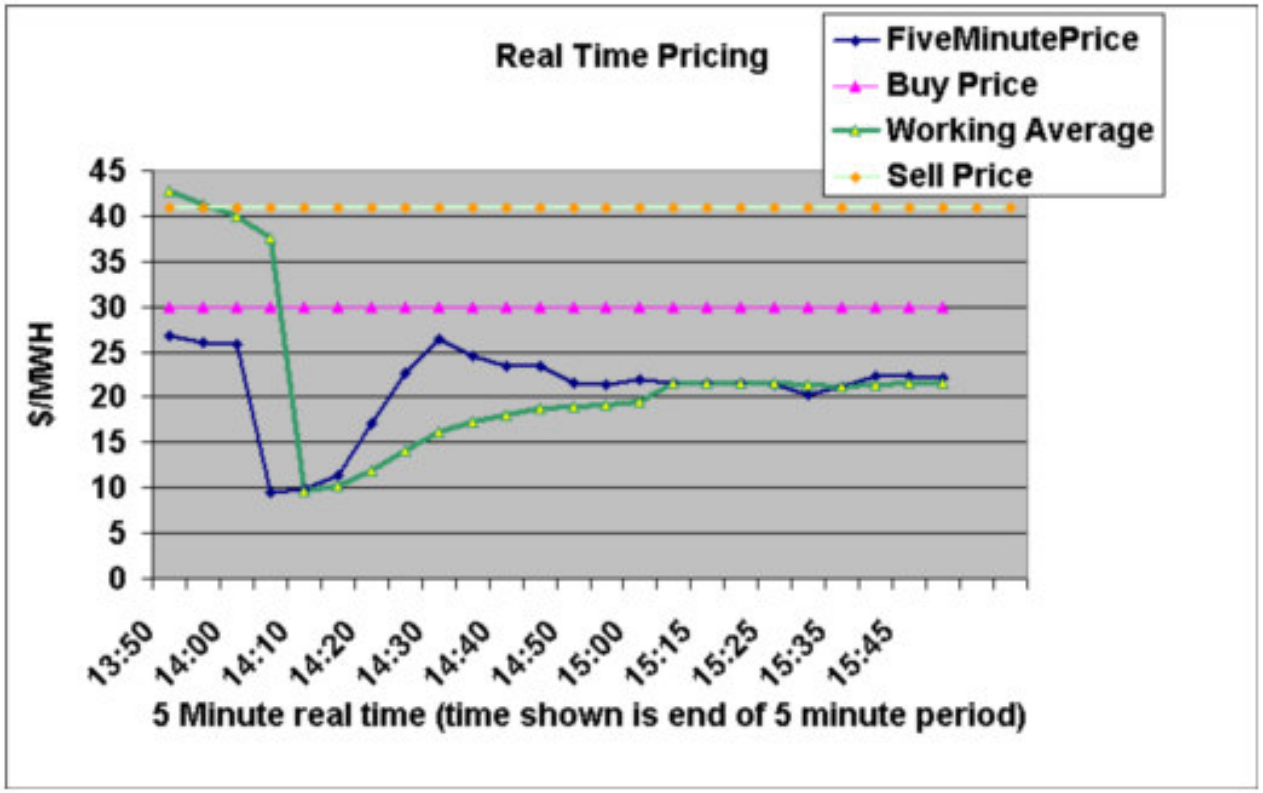
SMART PAPERS

Reporting System

Thursday, September 24, 2009



Average Price This Hour
$21.62 Thru 15:55

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To Participate in this Activity

Real time data from inside and outside the facility

- Accurate
- Time stamped
- Totalized / Summarized

Organized visually for the target user

- Operator
- Manager
- Business

Allows reaction and response in a frequency window very atypical of a manufacturing complex and its electric supply