



A Member of The Texas A&M University System

Office of the President

EXECUTIVE COUNCIL MEETING
October 8, 2007
8:30 a.m.
KL 270

R. KECK

1. Update on university issues
 - AutMus – BJ thanked everyone for their help. AutMus was a success this year.
 - Jones suggested more kids entertainment.
2. Graduation
 - Number of graduates has increased and the university is now faced with safety issues such as traffic congestions because the university only has one campus entrance and minimal parking forcing people to park on Loop 20. This situation has made it unsafe for those attending graduations. As a solution to these situations the graduation ceremonies will be held at the Laredo Entertainment Center beginning this December.
 - Dr. Keck will send e-mail to all employees and all students announcing the change in location.
 - Steve will get information to the media.
 - Dr. Keck mentioned that Dr. Jones is discussing with the Provost Advisory Council procedures for other events to take place on campus. These will be smaller but meaningful ceremonies that will bring families on campus. Examples: Honors Ceremony, Hooding ceremony, etc...

B. GASKINS

- Computer refresh – Brian will send out the list of computers that were approved for your area.
 - To date \$336,971 has been spend out of HEAF funds. Brian mentioned that this number may be reduced once the bids are received. Attachment I.
3. Clicker
 - Faculty Senate and Provost advisory council received presentation.
 - Receivers will be installed in all classrooms by this spring.
 - Department Chairs will receive presentation on the use of this item. Dr Jones invited Brian to the Chairs meeting scheduled for Friday.
 - Tom Mitchell voiced concern for security. He made reference to the UISD story in the news of inappropriate use of computer and asked if we monitor what sites are visited by or employees. Brian said web traffic is not monitor a warning statement is placed in every computer and is displayed every time the employee logs in.
 4. HB66 Attachment II.
 - Mandates that each state agency acquires power savings software. This power management shuts computers at a particular time for power savings. Tests were done in computer lab and OIT computers. Software is \$25,000 and it will take about a year to recuperate the cost in savings.



A Member of The Texas A&M University System

- Safety issues: Attachment III.
 - It is recommended that staff turn off their computers at the end of the day.
 - If you must work with sensitive student information Brian suggests that you request for OIT to transfer this information to a server and OIT will assign a password to log in and retrieve the info.
- Tom Mitchell asked if faculty can request to have access to the server. Brian will work on sending announcement out to the faculty to let them know of this service and how to request it.

J.M. SOLIZ

- October 8 – Sames Scholars Campus Day
- October 8 – 5000 enrollment celebration, 2:00 p.m. Student Center Rotunda
- October 9 – Paul Harris Dinner, 6:30 p.m. at the Monte Carlo
- October 11 – Sanchez Lecture, 7:00 p.m. FA Recital Hall
- October 10 – UTHSC Agreement signing, 10:00 a.m.
- October 13 – STARS, 6:30 p.m. Laredo Country Club
- For more TAMIU events visit <http://www.tamiu.edu/calendar/month.php>

No Items

E.N. MARTINEZ, J. GARCIA L. STAMOULIS, M. TREVINO J. ORTIZ, T. MITCHELL, D. JONES, B. MOMAYEZI,
N. BURKHALTER, J. SO, J. LIRA, N. MOMAYEZI, J. BROWN, D. SNELL, S. HARMON, H. GONZALEZ

Absent. C. HEIN, M. RAMIREZ

Purchasing Summary

Funding Type: Grant

Account Number: 420215

Computer Description	Quantity	Price	Total
Dell Desktop Computer Optiplex 745	3	1,559.20	4,677.60

Totals:	3		4,677.60
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Funding Type: Grant

Account Number: 420224

Computer Description	Quantity	Price	Total
Dell Desktop Computer Optiplex 745	3	1,559.20	4,677.60

Totals:	3		4,677.60
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Funding Type: Grant

Account Number: 420232

Computer Description	Quantity	Price	Total
Dell Desktop Computer Optiplex 745	2	1,559.20	3,118.40
Dell Latitude D520 Dual Core	5	1,429.30	7,146.50

Totals:	7		10,264.90
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Funding Type: Grant

Account Number: 420236

Computer Description	Quantity	Price	Total
Dell Desktop Computer Optiplex 745	1	1,559.20	1,559.20
Dell Laptop (Desktop Equivalent) Latitude D630	3	2,405.00	7,215.00

Totals:	4		8,774.20
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Funding Type: HEAF for Computer Refresh

Account Number: 141012

Computer Description	Quantity	Price	Total
Apple Desktop Computer iMac 20	9	1,653.00	14,877.00
Apple Laptop Computer MacBook Pro	4	2,789.00	11,156.00
Dell Desktop Computer Optiplex 320 Students	139	1,074.10	149,299.90
Dell Desktop Computer Optiplex 745	64	1,559.20	99,788.80
Dell Laptop (Desktop Equivalent) Latitude D630	19	2,405.00	45,695.00
Dell Latitude D520 Dual Core	1	1,429.30	1,429.30
IBM/Lenovo Laptop (Desktop Equivalent) ThinkPad T61	7	2,103.44	14,724.08

Totals:	243		336,970.08
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Totals:	260		365,364.38
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Approvers Report

Approver Name: Dr. Keck

Department Name: Public Relations and Marketing **Funding Type:** HEAF for Computer Refresh **Account Number:** 141012

Computer Description	Dept. Account	Type	Assigned to	Location	Ext.	Tag Num.	Serial Num.	Cost	Status	Cost App.	Record ID
Apple Desktop Computer Mac 20	141012	Replacement	Laura Martinez	KL-268	2180	29747	BDDL19497	1,653.00	In Progress	1,653.00	207
Department Total PCs and Cost:								1	1,653.00	1	1,653.00
Approver Total PCs and Cost:								1	1,653.00	1	1,653.00

Attachment II

H.B. No. 66

AN ACT

relating to power management software for state agencies.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Subchapter F, Chapter 2054, Government Code, is amended by adding Section 2054.124 to read as follows:

Sec. 2054.124. POWER MANAGEMENT SOFTWARE. (a) After researching the software available, the department shall by competitive bid select power management software to be used, if technically feasible, by state agencies to reduce the amount of energy required to operate state computer networks and networked personal computers.

(b) As determined by the department, each state agency that would benefit from using power management software that would provide cost savings to this state in the state fiscal biennium ending August 31, 2009, shall purchase, lease, or otherwise acquire and use the software for the agency's computer networks to manage the energy usage of the agency's networked personal computers. This subsection expires September 1, 2009.

(c) An institution of higher education shall purchase, lease, or otherwise acquire and use power management software only if the department, in consultation with the Information Technology Council for Higher Education, determines that the institution of higher education's use of power management software would provide cost savings to this state. In making a determination under this subsection, the department must perform the analysis described by Section 2054.121(c). The analysis must include an assessment of how the use of power management software affects the security of electronic data, including data protected from public disclosure by state or federal law.

SECTION 2. This Act takes effect September 1, 2007.

President of the Senate

Speaker of the House

I certify that H.B. No. 66 was passed by the House on April 12, 2007, by the following vote: Yeas 139, Nays 0, 1 present, not voting; and that the House concurred in Senate amendments to H.B. No. 66 on May 8, 2007, by the following vote: Yeas 146, Nays 0, 2 present, not voting.

Chief Clerk of the House

I certify that H.B. No. 66 was passed by the Senate, with

**PROPOSAL TO SAVE ENERGY
AND REDUCE PC OPERATING COSTS FOR**

TEXAS A&M

INTERNATIONAL UNIVERSITY

Software and Services provided by

VERDIEM

Power Management for PC Networks

PRESENTED BY:

Glenn Baker, Director - Strategic Accounts, Verdiem Corporation

206-828-2830, glennb@verdiem.com

August 14, 2007



Executive Summary

REDUCING PC ENERGY CONSUMPTION AND COSTS

Personal computer networks are the fastest-growing source of energy consumption in most organizations today, and often represent up to 15% of total energy costs. Unfortunately, almost half of this energy is wasted because PCs are left running in inappropriate power states for their immediate needs. The solution is a software program that balances the needs of PC users and network administrators with the requirement to eliminate energy waste and reduce costs. Verdiem offers SURVEYOR, a software solution that eliminates PC energy waste while providing accurate measurement and verification of savings.

The value of PC Power Management Software was recently again validated by the passing of Texas House Bill 66 which becomes effective September 1, 2007. The full text can be found at <http://www.capitol.state.tx.us/BillLookup/Text.aspx?LegSess=80R&Bill=HB66>. In summary it encourages all Texas State Agencies and Universities to take a serious look at implementing PC Power Management software where possible. With Verdiem software TAMIU would not only save energy and money but would comply with this legislation. To ease procurement, it should be noted that Verdiem software is on the Texas DIR Contract (DIR-SDD-485)

Verdiem is pleased to offer a solution that will lower the energy costs of networked PCs at TAMIU and provide a rapid payback. Based on the results of a recent Computer Energy Consumption Analysis that measured the energy consumption of a representative sample of PCs at TAMIU, the potential savings are as follows:

	Year 1	Cumulative Years 1 - 3
BENEFITS	\$67,440	\$202,320
COSTS	\$27,500	\$37,000
NET VALUE	\$39,940	\$165,320

PAYBACK ON INVESTMENT (MONTHS)	4.7
3 YEAR CUMULATIVE ROI	547%

ABOUT VERDIEM

Verdiem is the leading developer of power management software for networked PCs. Verdiem's SURVEYOR software provides measurable energy and cost savings, simplified and automated management of PC power states, and painless implementation that comes with minimal maintenance and a rapid payback. Verdiem's SURVEYOR has been approved as an energy efficiency measure by utilities throughout North America. Verdiem is a recognized partner in the EPA's *Energy Star* program and is a Department of Energy *Rebuild America* Premier Partner.

Reducing PC Energy Waste and Operating Costs

HOW PC NETWORKS WASTE ENERGY

Lawrence Berkeley National Labs and the Department of Energy have estimated that non-residential personal computers in the United States waste over 24 billion kilowatt-hours of energy a year, simply by running at full power when no users are present.¹ Power management (energy-saving) features for individual PCs have been available since 1994, but are underutilized because PC users are not typically concerned about energy costs or are unaware of how much energy can be saved.

According to a recent Department of Energy study:²

- 75% of PCs have had their power management functions disabled.
- Facility or energy managers and IT personnel have no easy way to measure the energy consumption of PC networks, and no way to determine how much energy could be saved.
- Network administrators and desktop managers have no way to quickly and easily synchronize PC and monitor power management settings across thousands of PCs in network environments.

The DOE study also demonstrates that current solutions are ineffective:

- If PC and monitor power settings are configured when new PCs are deployed, more than 80% of users will disable the settings within 90 days.
- If users are prevented from changing their PC power settings by 'one-size-fits-all' administrative controls, many users will complain, and energy will be wasted because of the least common denominator approach. For example, if low-power settings are enforced but timed to occur so infrequently that users are never annoyed, significant potential energy savings won't be captured.
- Behavior modification efforts, such as email reminders that encourage users to activate their PCs' power management features, are resource-intensive, ineffective, short-lived and impossible to measure.

SURVEYOR ELIMINATES PC ENERGY WASTE AND IMPROVES IT EFFICIENCY

To eliminate energy waste in PC networks, Verdiem offers SURVEYOR, a software program that manages and reduces the energy consumption of networked PCs while providing accurate measurement and verification of energy savings. SURVEYOR provides network-level control over PC power management settings and enables facility managers and network administrators to easily determine, change and synchronize user-friendly power settings for networked PCs.

¹ Platts ESource, *Network Power Management Software*, November 2004

² TIAX LLC, *Energy Consumption by Office and Telecommunications Equipment in Commercial Buildings*, December 2004, for U.S. Department of Energy.

VERDIEM'S PARTNERS AND THIRD PARTY VALIDATION

SURVEYOR has been extensively tested and validated by dozens of public and private utilities, energy efficiency groups, government agencies and energy services companies from coast to coast. Many of these organizations have supported SURVEYOR through development, marketing, incentive or outreach programs. SURVEYOR's inclusion in incentive programs and large energy service contracts serves as ongoing validation of its effectiveness at reducing energy waste of networked PCs.

SURVEYOR's measurement functionality and field performance have also been validated by a number of independent, third party organizations including: Quantec LLC, Advanced Energy, San Diego Gas and Electric and ESource.

A comprehensive list of Verdiem's partners can be found in Attachment G.

Actual energy consumption data was determined by wattmeter measurement averages of PC and monitor power draw, combined with SURVEYOR's measurement of how much time each TAMIU PC and monitor spent in each of its energy states.

The following team worked together to perform the TAMIU Computer Energy Consumption Analysis:

Name	Title
Kouros Khosrauiyani	Windows System Administrator
Brian Oehling	Senior Sales Engineer

RESULTS OF THE TAMIU COMPUTER ENERGY CONSUMPTION ANALYSIS

The Computer Energy Consumption Analysis for TAMIU revealed the following energy consumption (in kilowatt hours):

(kWh)	Per PC 1 Year	All PCs 1 Year	All PCs 3 Years
Energy Use, without SURVEYOR	736.0	736,000	2,208,000
Energy Use, with SURVEYOR	174.0	174,000	522,000
ENERGY SAVINGS	562.0	562,000	1,686,000

ENERGY REDUCTION %	76.4%
ENERGY SAVINGS PER MONTH	46,833

Based on the blended kWh cost for TAMIU, current PC energy cost and potential savings are:

(\$)	Per PC 1 Year	All PCs 1 Year	All PCs 3 Years
Cost, without SURVEYOR	\$73.60	\$73,600	\$220,800
Cost, with SURVEYOR	\$17.40	\$17,400	\$52,200
COST SAVINGS	\$56.20	\$56,200	\$168,600

COST REDUCTION %	76.4%
COST SAVINGS PER MONTH	\$4,683

For a detailed description and complete data set from the Computer Energy Consumption Analysis, see Attachment A.

THE BUSINESS CASE FOR TAMIU

SURVEYOR delivers a rapid and measurable payback based simply on reducing the cost to power the PC network. Because SURVEYOR can accurately measure before-and-after energy use, the net value TAMIU will receive from SURVEYOR can be precisely calculated, as shown in the table below:

	1 Year	3 Years
BENEFITS		
Energy Savings	\$56,200	\$168,600
HVAC Load Savings (Assuming 15%)	\$11,240	\$33,720
COSTS		
SURVEYOR Licenses	\$25,000	\$25,000
Verdiem Professional Services	\$1,500	\$1,500
Software Maintenance Support	\$0.00	\$7,500
NET VALUE	\$40,940	\$168,320

PAYBACK ON INVESTMENT (MONTHS)	4.7
3 YEAR CUMULATIVE ROI	547%

- Annual Software Maintenance Support ensures uninterrupted energy savings by providing new versions of SURVEYOR with updated features (including features that support upgrades to Microsoft Windows and other applications); unlimited technical support via phone, email and FTP site and an annual audit of PC network energy use. These benefits lower the total cost of ownership for SURVEYOR and ensure maximum energy savings year after year.

Attachment A - Computer Energy Consumption Analysis Data Reports

Attachment D - SURVEYOR Support Requirements

SURVEYOR is engineered to minimize the time needed for deployment and ongoing support. The following tables summarize the activities and estimated time required to support SURVEYOR for the initial deployment and ongoing support.

CONSULTING AND DEPLOYMENT TIME REQUIREMENTS

ACTIVITY	DESCRIPTION	Time
Install & configure server software	Includes identification of a server with a static IP address and configuration of SQL Server.	1 hr
Install & configure server software on distributed servers (optional)	May be required for networks that encompass tens of thousands of PCs with distributed domains. Server replication setup is the primary activity associated with these types of installations.	2 to 4 hrs plus 1 hr/server
Deploy client software	Includes deploying client software to network PC; actual time depends on deployment method used (login scripts, Microsoft SMS, Novell ZENworks, etc).	6 hrs for each method needed
Group clients (optional)	Includes identifying groups of users that would share common power management policies. Client groups can be configured prior to deployment or created after the client software is installed.	1 hr
Prepare images (optional)	Network administrators can setup up their PC ghost image with an installation of SURVEYOR. This activity is based on the method by which an institution deploys new PCs.	15 minutes

MANAGEMENT AND SUPPORT TIME REQUIREMENTS

ACTIVITY	DESCRIPTION	Time
Reorganize client grouping (optional)	Periodically review and re-group clients to reflect organizational changes.	2 hrs once per year
Generate reports	Periodically run energy consumption reports to review energy savings and identify opportunities to increase cost savings by tuning power management policies.	1 to 2 hrs twice a year
Install SURVEYOR upgrades	Install maintenance updates and new versions of SURVEYOR as released by Verdiem (typically twice per year).	4 hrs twice a year
User support	Respond to help desk calls from end-users that may be experiencing issues on their PCs relative to the SURVEYOR software or power management policies.	2 to 4 hrs quarterly as needed

Attachment G - Testimonials

CUSTOMER COMMENTS

"It's pretty much set it up and let it go. We automatically save money every year."

—*David Biedermann Information Technology Director, Portland METRO regional government*

"Using Verdiem's SURVEYOR demonstrates the city's commitment to lead by example by reducing energy use and harmful greenhouse gas emissions while saving taxpayer money."

—*Thomas M. Menino, Mayor, City of Boston*

"This software package is the best that I have experimented with. Verdiem is the most professional and helpful sales company that I have worked with in the past thirteen years."

—*Edwin Hood, Energy Management Coordinator, Abbotsford School District*

"It is a very good product. Bottom line is that it is up, saving money and doing what it is supposed to, without requiring any significant time, resources, or maintenance."

—*Emil Parrinello, Manager IT Administration, Queensborough Community College*

"We give it a big thumbs-up. We know that the savings are there."

—*Gurvinder Singh, Senior Energy Management Engineer, Puget Sound Energy*

"In the worst-case scenario our simple payback period will be under a year. Best case? A few months."

—*Walter Lin, Senior Engineering Technician, City of San Jose*

INDUSTRY REVIEWS

"The users we spoke with were universally positive about the software, and it appears that in many corporate settings, the software will pay for itself quickly... SURVEYOR appears likely to be highly cost effective in large numbers of organizations, and the flexibility it offers gives it broader applicability than any other software solution we are aware of... Therefore we recommend that utilities adopt SURVEYOR for their own internal use, and that they promote it broadly to their commercial customers."

—*Platts E-Source Technology Assessment, September 2004*

"The demonstration project at Advanced Energy showed significant energy savings for all desktop computer configurations and some savings for laptop computers. The software was incredibly effective at reducing energy consumption, easy to use, resulted in no loss of data, and has the potential to greatly impact businesses in the state... Therefore, SURVEYOR should be endorsed to all businesses with a networked computer system."

—*Advanced Energy, Demonstration of SURVEYOR Software, August 2004*

"Savings expectations were consistent with the savings estimate calculated by Verdiem. Depending on the utility rates in place in a particular location, annual savings could be from \$12 to \$20 per computer (about 160 kWh to 200 kWh)..."

—*Quantec LLC, Market Progress Evaluation Report 2, June 2004*

Attachment H – Verdiem's Partners

- *ENERGY STAR* is a U.S. Department of Energy EPA program that helps businesses and individuals protect the environment through energy efficiency. As an ENERGY STAR partner, Verdiem is helping ENERGY STAR educate public and private organizations about PC energy waste and greenhouse gas emissions that result from PC energy consumption.
- *Rebuild America* is a program of the U.S. Department of Energy that focuses on energy-saving solutions for U.S. communities. Verdiem is a Rebuild America Business Premier Partner, educating the organization's members on how to eliminate energy waste in PC networks.
- *Bonneville Power Administration* studied SURVEYOR to determine its applicability for BPA's Conservation & Renewable Discount program. The study concluded that SURVEYOR would save an average of 200 kWh per PC per year, and BPA approved SURVEYOR as the first software product to qualify for utility rebates under this program.
- *The Northwest Energy Efficiency Alliance* is a regional consortium of utilities and energy efficiency groups that works to make affordable energy-efficient products and services available in the marketplace. The NWEAA hired an independent engineering firm to audit SURVEYOR's performance in customer environments; the audit confirms that SURVEYOR is extremely accurate in its measurement of PC energy consumption.
- *Advanced Energy* was founded in 1980 by the North Carolina Utilities Commission to investigate and implement new technologies for distributed generation, load management, conservation and energy efficiency. In August 2004, Advanced Energy published a report titled "Demonstration of SURVEYOR Software Implementation and Economic Feasibility." (available on request).
- *Wisconsin Focus on Energy* is a public-private partnership offering energy information and services to utility customers in Wisconsin. Wisconsin FOE is partnering with Verdiem to provide energy users a financial incentive based on their kWh savings from SURVEYOR.
- *New York Power Authority* is America's largest state-owned power provider. NYPA operates 17 generating facilities and over 1,400 circuit-miles of transmission lines, and is a national leader in promoting energy efficiency. NYPA and Verdiem are working together to deliver significant energy savings to NYPA's public sector customers.
- *San Diego Gas & Electric* is a regulated public utility providing electric service to 3 million consumers through 1.3 million electric meters and 789,000 natural gas meters in San Diego and nearby counties. SDG&E provides financial rebates to customers who purchase SURVEYOR.
- *Puget Sound Energy* delivers energy solutions to more than 1.2 million customers in Washington State. PSE pays for up to 50% of SURVEYOR's cost for their customers. PSE is also using SURVEYOR in its own office facilities.
- Other utilities offering incentives for purchasing SURVEYOR include: Avista, Idaho Power, Northeast Utilities, NSTAR, Oregon Energy Trust, PacifiCorp, Pacific Gas and Electric, Seattle City Light, Snohomish PUD, Southern California Edison, the United Illuminating Company, BC Hydro and Xcel Energy.

Actual vs. Simulated Power Consumption

Tx A&M IU (All Clients)

Summary of Annualized Energy Consumption Data

	Annual Per PC Average	All 2,000 PCs
Baseline Energy Consumption	121.6 kWh	243,180 kWh
Energy Consumption with Surveyor	37.49 kWh	74,972 kWh
Energy SAVINGS	84.10 kWh	168,208 kWh
Greenhouse Gas Emission REDUCTION	119.51 lbs	239,024 lbs
Energy REDUCTION %		69.2 %

Summary of Annualized Energy Costs

	Annual Per PC Average	All 2,000 PCs
Current Energy Cost	\$ 12.16	\$ 24,317.99
Energy Cost with Surveyor	\$ 3.75	\$ 7,497.19
Cost SAVINGS	\$ 8.41	\$ 16,820.80
Cost SAVINGS %		69.2 %

Actual vs. Simulated Power Consumption for Tx A&M IU (All Clients)

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Report executed on: 8/10/2007

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Actual vs. Simulated Power Consumption

Tx A&M IU (All Clients)

Parameters of your Network Energy Analysis

Data collected from Monday, July 02, 2007 through Wednesday, July 25, 2007.

Data collected on a sample set of 130 PCs.

For each kWh of power used, 1,421 pounds of CO2 are released into the atmosphere.

Average PC power draw is 70 watt(s) when on, 3 watt(s) when in suspend mode, and 1 watt(s) when off.

Average monitor power draw is 50 watt(s) when on, 2 watt(s) when sleeping, and 0 watt(s) when off.

Power savings projection to all PCs based on 2,000 PCs managed by Surveyor.
Electricity rate is \$ 0.10 per kWh.

Power management policy used for Surveyor simulation

Beginning at 8:00 AM

- monitor sleeps after 30 minutes of inactivity.
- PC goes to standby after 60 minutes of inactivity.

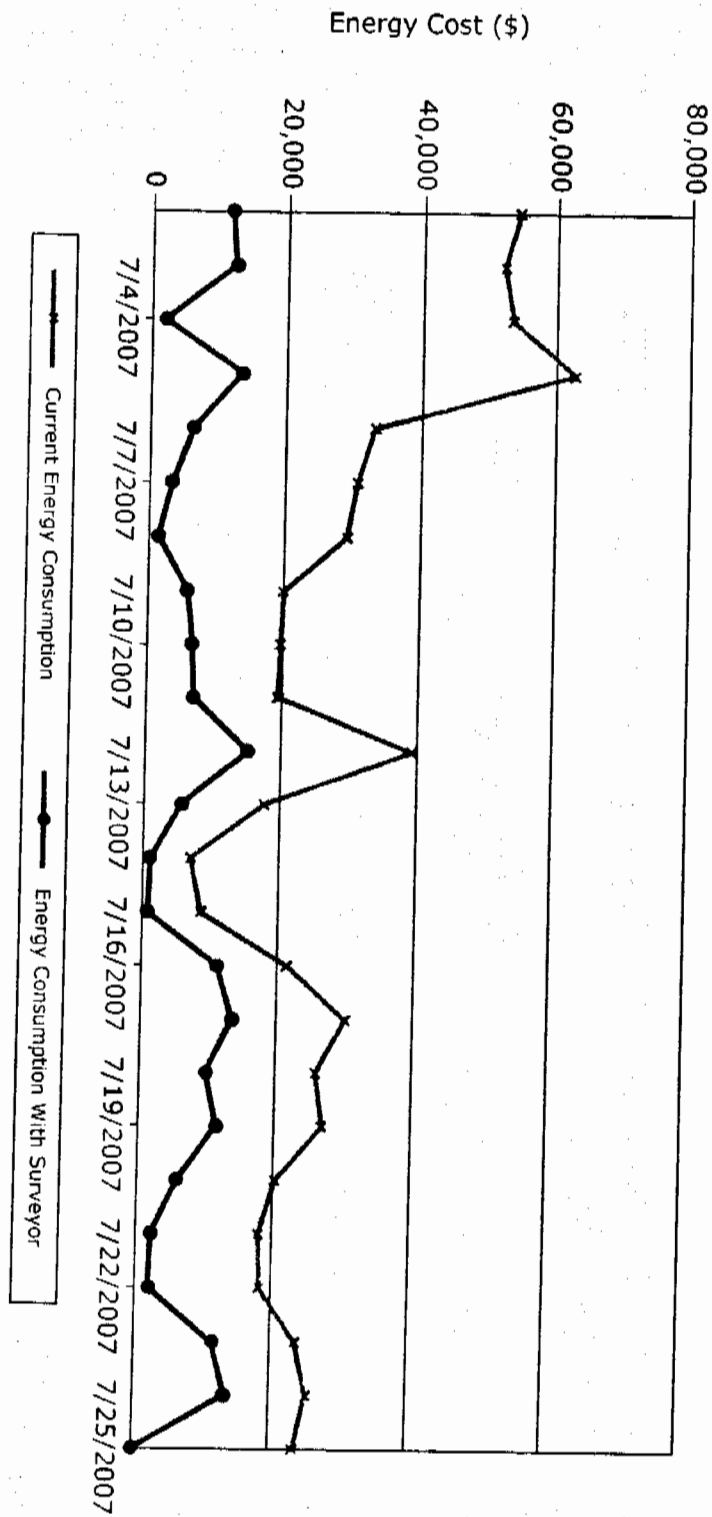
Beginning at 6:00 PM

- monitor sleeps after 15 minutes of inactivity.
- PC goes to standby after 30 minutes of inactivity.

PC shuts down at 8:00

Actual vs. Simulated Power Consumption Tx A&M IU (All Clients)

Annualized Daily Energy Cost



Energy costs are extrapolated to a population of 2,000 PCs based on actual measurements of 130 PCs.

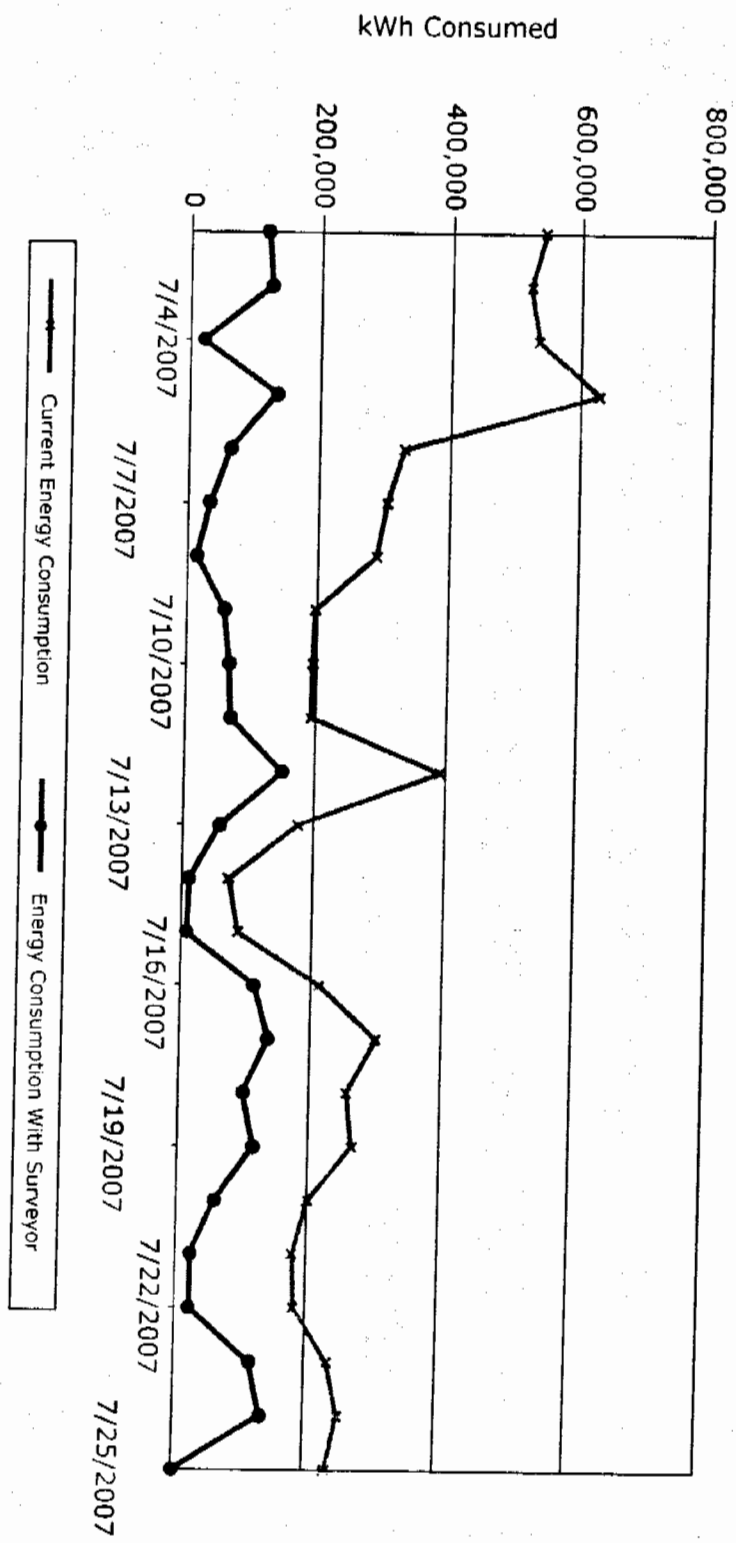
Actual vs. Simulated Power Consumption for Tx A&M IU (All Clients)

Created By VERDYM

Report executed on: 8/10/2007

Actual vs. Simulated Power Consumption Tx A&M IU (All Clients)

Annualized Daily Power Usage



Energy consumption is extrapolated to a population of 2,000 PCs based on actual measurements of 130 PCs.

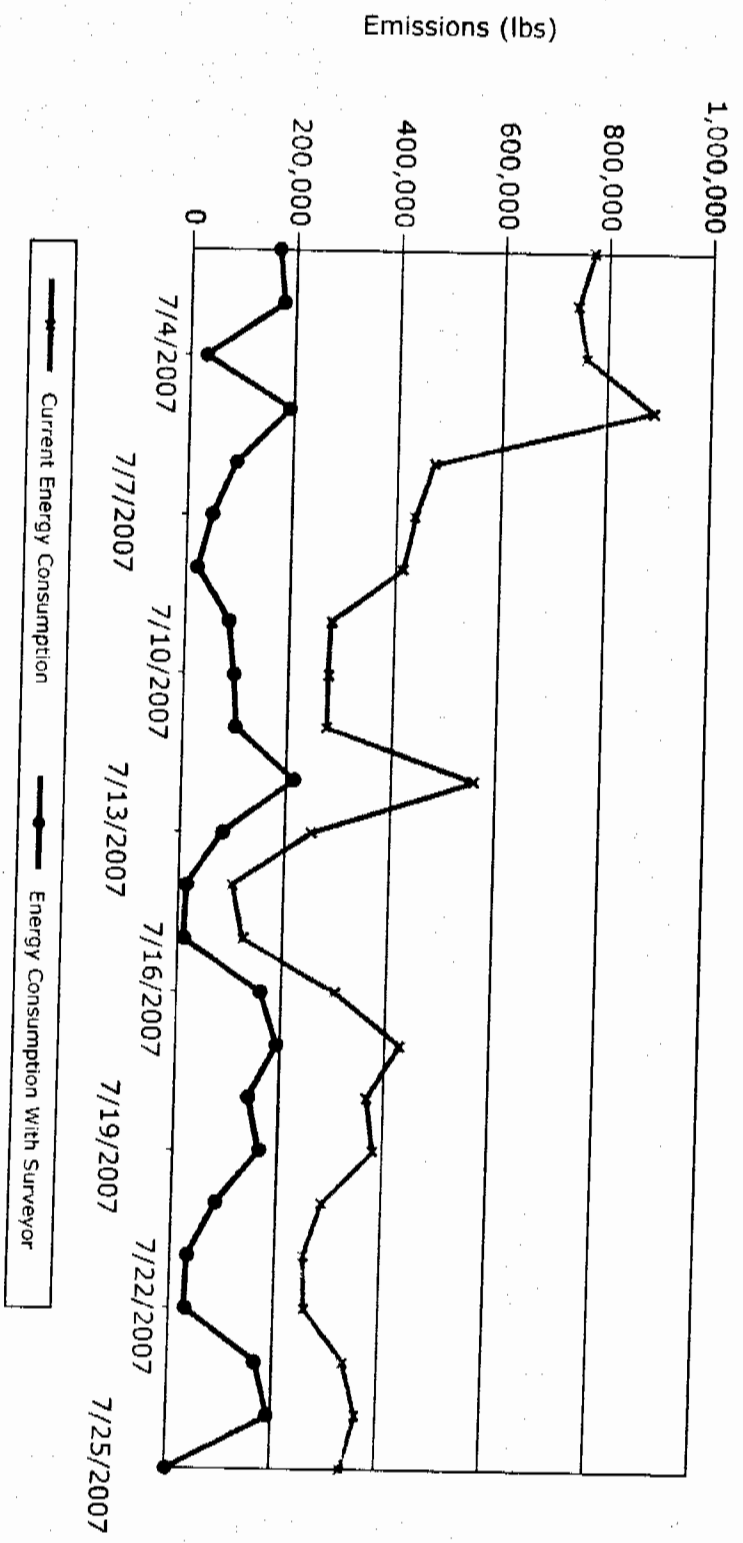
Actual vs. Simulated Power Consumption for Tx A&M IU (All Clients)

Created By: VERDYM

Report executed on: 8/10/2007

Actual vs. Simulated Power Consumption Tx A&M IU (All Clients)

Annualized Daily Greenhouse Gas Emissions



Emission quantities are based on the average measured daily emissions, extrapolated to 2,000 PCs.

Actual vs. Simulated Power Consumption for Tx A&M IU (All Clients)

Created By VERDJEM

Report executed on: 8/10/2007

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Actual vs. Simulated Power Consumption Tx A&M IU (Cowart Labs)

Summary of Annualized Energy Consumption Data

	Annual Per PC Average	All 2,000 PCs
Baseline Energy Consumption	8.6 kWh	17,188 kWh
Energy Consumption with Surveyor	4.03 kWh	8,051 kWh
Energy SAVINGS	4.57 kWh	9,137 kWh
Greenhouse Gas Emission REDUCTION	6.49 lbs	12,983 lbs
Energy REDUCTION %		53.2 %

Summary of Annualized Energy Costs

	Annual Per PC Average	All 2,000 PCs
Current Energy Cost	\$.86	\$ 1,718.83
Energy Cost with Surveyor	\$.40	\$ 805.14
Cost SAVINGS	\$.46	\$ 913.68
Cost SAVINGS %		53.2 %

Actual vs. Simulated Power Consumption for Tx A&M IU (Cowart Labs)

Created By: VERDyEM

Report executed on: 8/9/2007

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Actual vs. Simulated Power Consumption

Tx A&M IU (Coward Labs)

Parameters of your Network Energy Analysis

Data collected from Wednesday, June 06, 2007 through Wednesday, July 25, 2007.
Data collected on a sample set of 103 PCs.

For each kWh of power used, 1,421 pounds of CO2 are released into the atmosphere.

Average PC power draw is 70 watt(s) when on, 3 watt(s) when in suspend mode, and 1 watt(s) when off.

Average monitor power draw is 50 watt(s) when on, 2 watt(s) when sleeping, and 0 watt(s) when off.

Power savings projection to all PCs based on 2,000 PCs managed by Surveyor.

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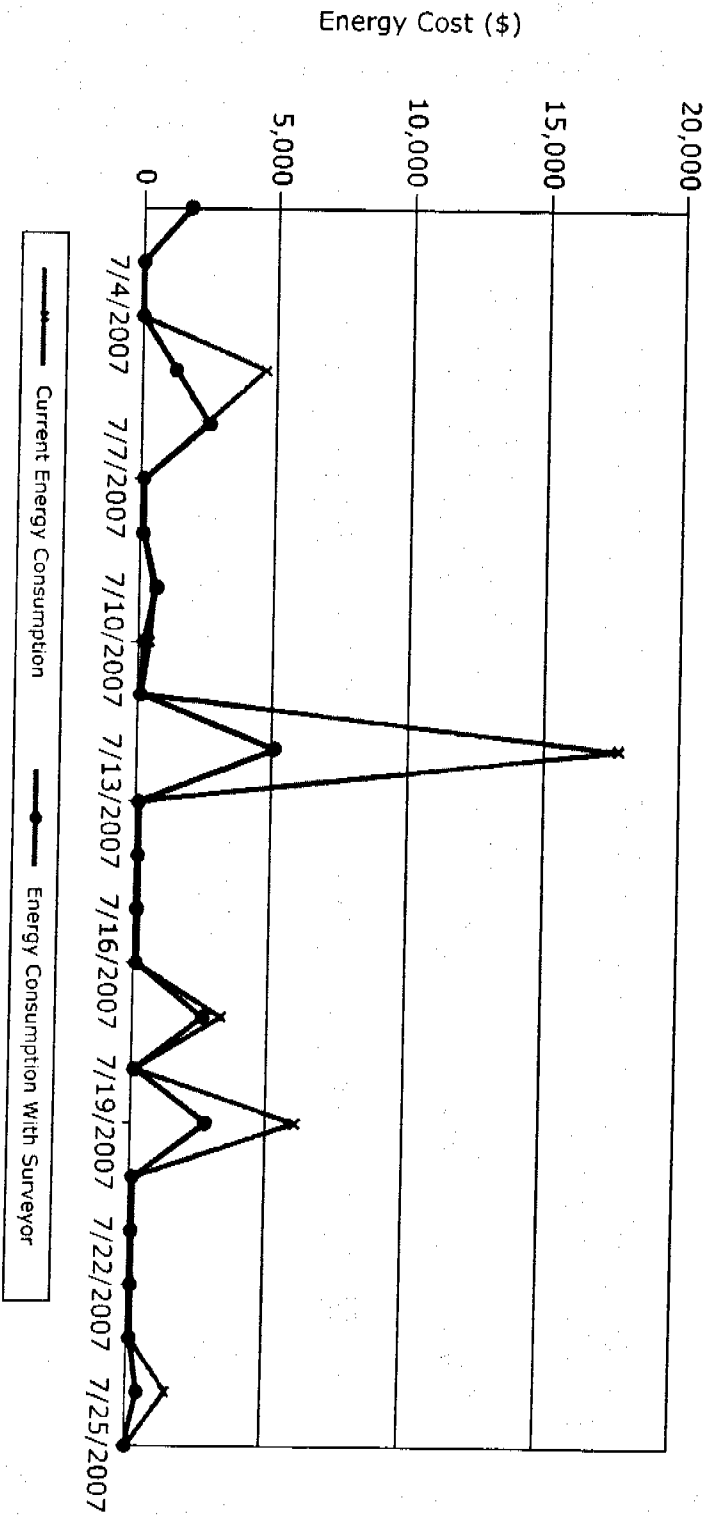
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Actual vs. Simulated Power Consumption Tx A&M IU (Cowart Labs)

Annualized Daily Energy Cost



Energy costs are extrapolated to a population of 2,000 PCs based on actual measurements of 103 PCs.

Actual vs. Simulated Power Consumption for Tx A&M IU (Cowart Labs)

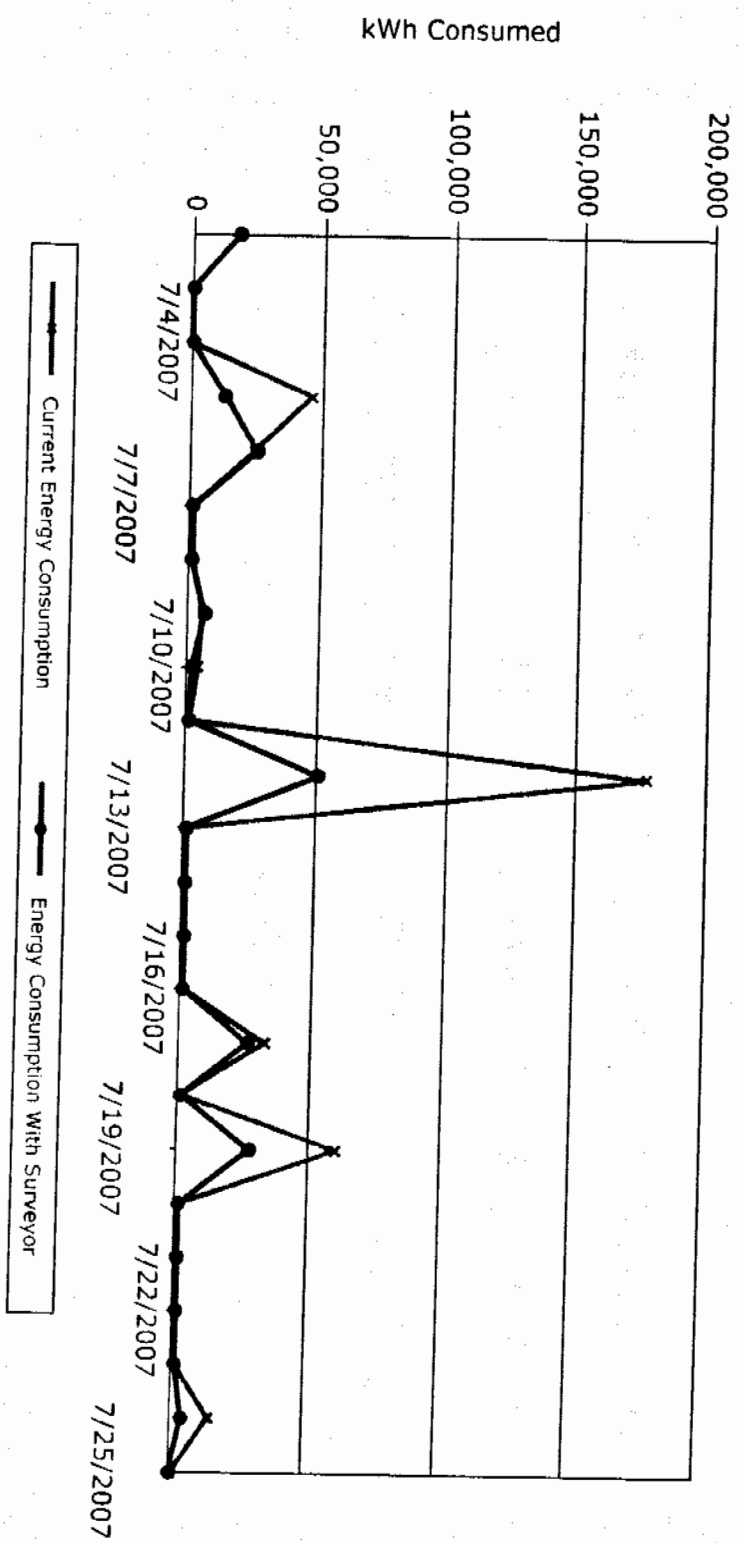
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Report executed on: 8/9/2007

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Actual vs. Simulated Power Consumption Tx A&M IU (Cowart Labs)

Annualized Daily Power Usage



Energy consumption is extrapolated to a population of 2,000 PCs based on actual measurements of 103 PCs.

Actual vs. Simulated Power Consumption for Tx A&M IU (Cowart Labs)

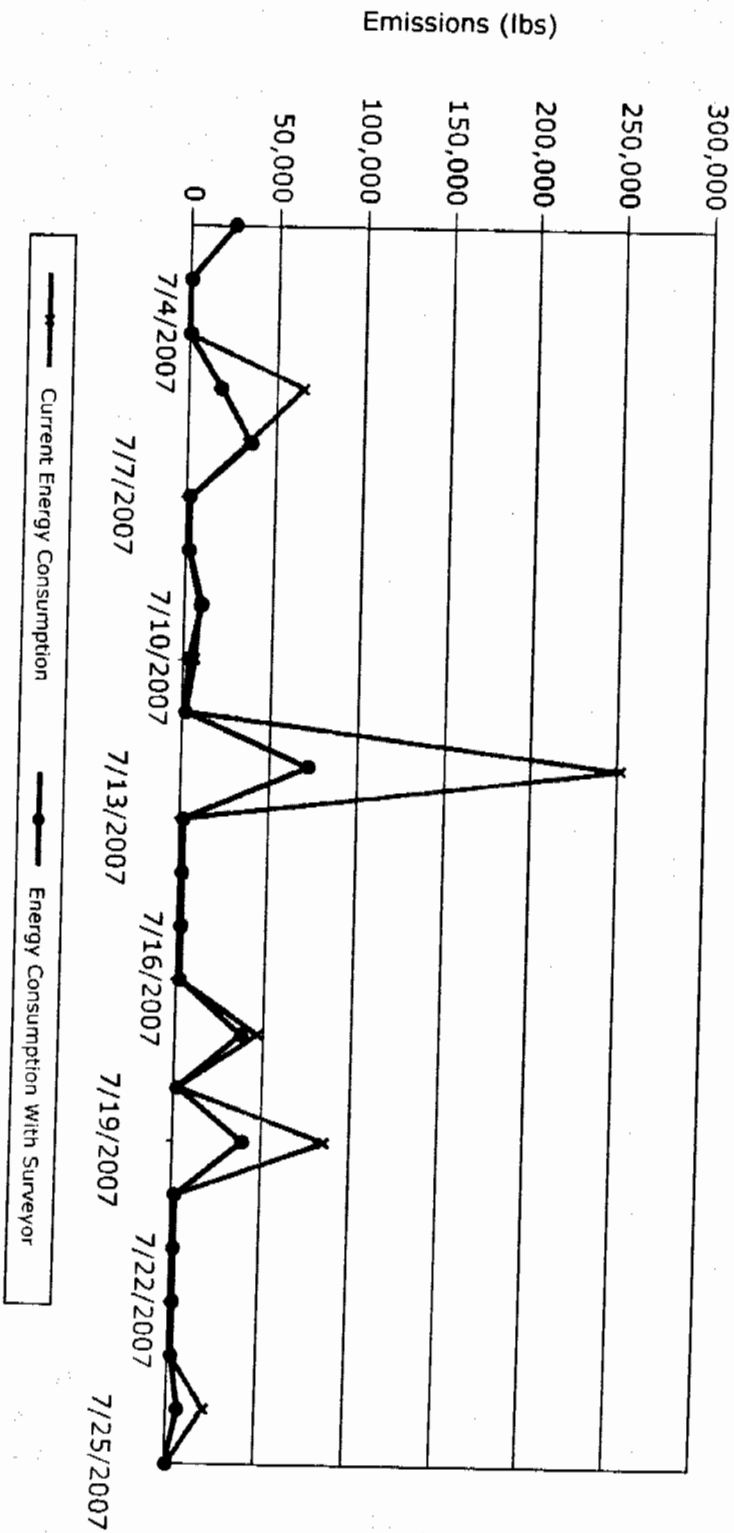
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Report executed on: 8/9/2007

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Actual vs. Simulated Power Consumption Tx A&M IU (Cownt Labs)

Annualized Daily Greenhouse Gas Emissions



Emission quantities are based on the average measured daily emissions, extrapolated to 2,000 PCs.

Actual vs. Simulated Power Consumption for Tx A&M IU (Cownt Labs)

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Actual vs. Simulated Power Consumption Tx A&M IU (Info Technology)

Summary of Annualized Energy Consumption Data

	Annual Per PC Average	All 2,000 PCs
Baseline Energy Consumption	735.8 kWh	1,471,695 kWh
Energy Consumption with Survevor	173.76 kWh	347,511 kWh
Energy SAVINGS	562.09 kWh	1,124,185 kWh
Greenhouse Gas Emission REDUCTION	798.73 lbs	1,597,466 lbs
Energy REDUCTION %		76.4 %

Summary of Annualized Energy Costs

	Annual Per PC Average	All 2,000 PCs
Current Energy Cost	\$ 73.58	\$ 147,169.51
Energy Cost with Survevor	\$ 17.38	\$ 34,751.05
Cost SAVINGS	\$ 56.21	\$ 112,418.46
Cost SAVINGS %		76.4 %

Actual vs. Simulated Power Consumption Tx A&M IU (Info Technology)

Parameters of your Network Energy Analysis

Data collected from Wednesday, June 06, 2007 through Wednesday, July 25, 2007.

Data collected on a sample set of 22 PCs.

For each kWh of power used, 1,421 pounds of CO2 are released into the atmosphere.

Average PC power draw is 70 watt(s) when on, 3 watt(s) when in suspend mode, and 1 watt(s) when off.

Average monitor power draw is 50 watt(s) when on, 2 watt(s) when sleeping, and 0 watt(s) when off.

Power savings projection to all PCs based on 2,000 PCs managed by Surveyor.
Electricity rate is \$ 0.10 per kWh.

Power management policy used for Surveyor simulation

Beginning at 8:00 AM

- monitor sleeps after 30 minutes of inactivity.
- PC goes to standby after 60 minutes of inactivity.

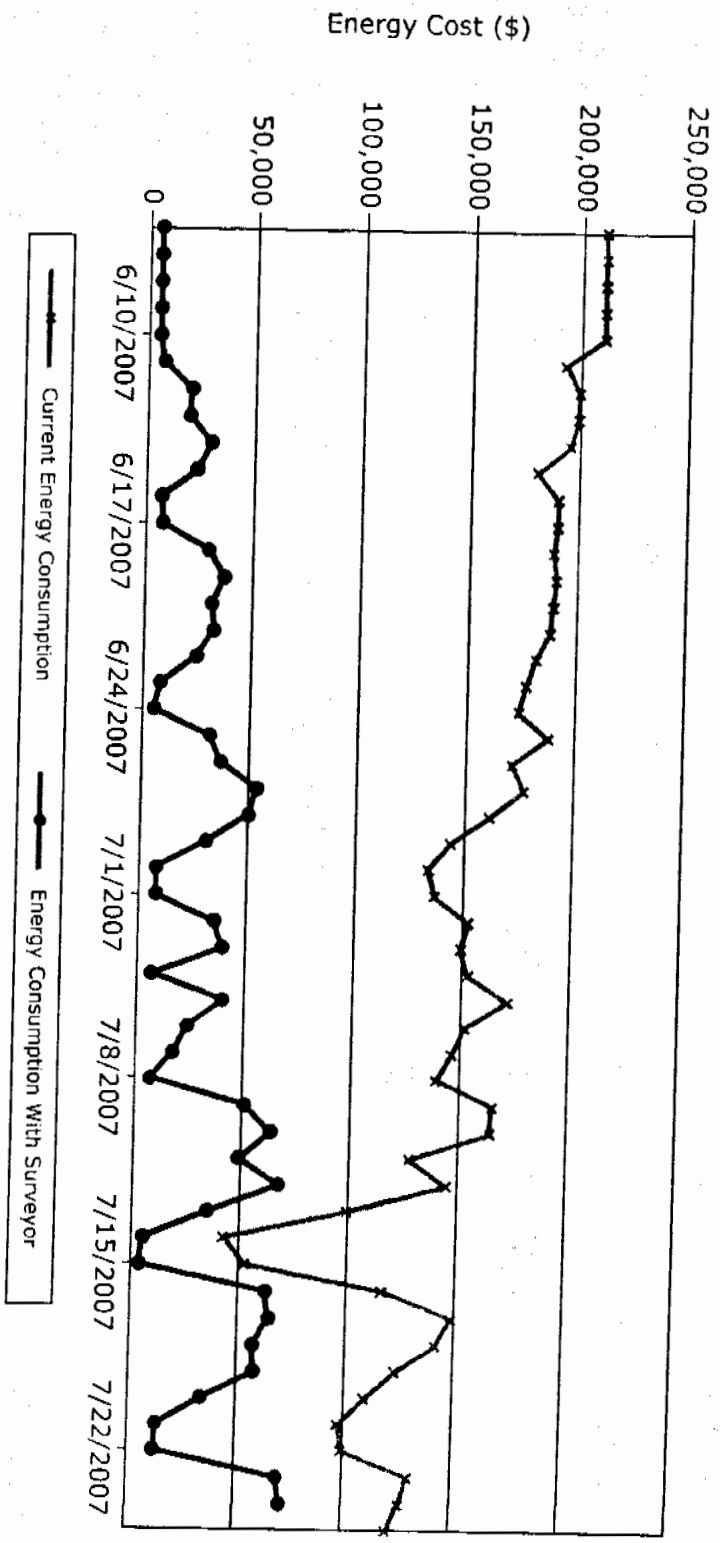
Beginning at 6:00 PM

- monitor sleeps after 15 minutes of inactivity.
- PC goes to standby after 30 minutes of inactivity.

PC shuts down at 8:00

Actual vs. Simulated Power Consumption Tx A&M IU (Info Technology)

Annualized Daily Energy Cost



Energy costs are extrapolated to a population of 2,000 PCs based on actual measurements of 22 PCs.

Actual vs. Simulated Power Consumption for Tx A&M IU (Info Technology)

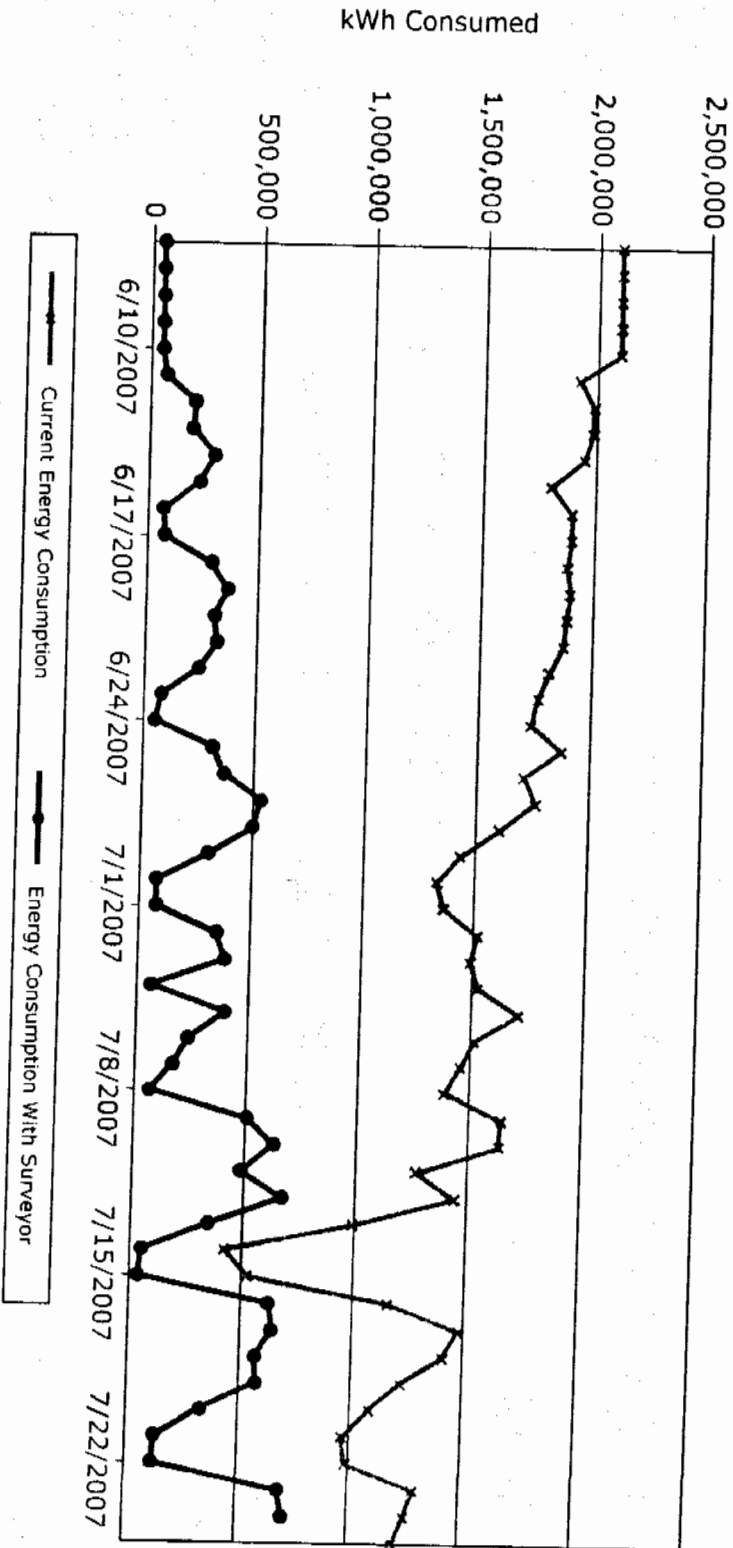
Created By V:VERDyEM

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Actual vs. Simulated Power Consumption Tx A&M IU (Info Technology)

Annualized Daily Power Usage



Energy consumption is extrapolated to a population of 2,000 PCs based on actual measurements of 22 PCs.

Actual vs. Simulated Power Consumption for Tx A&M IU (Info Technology)

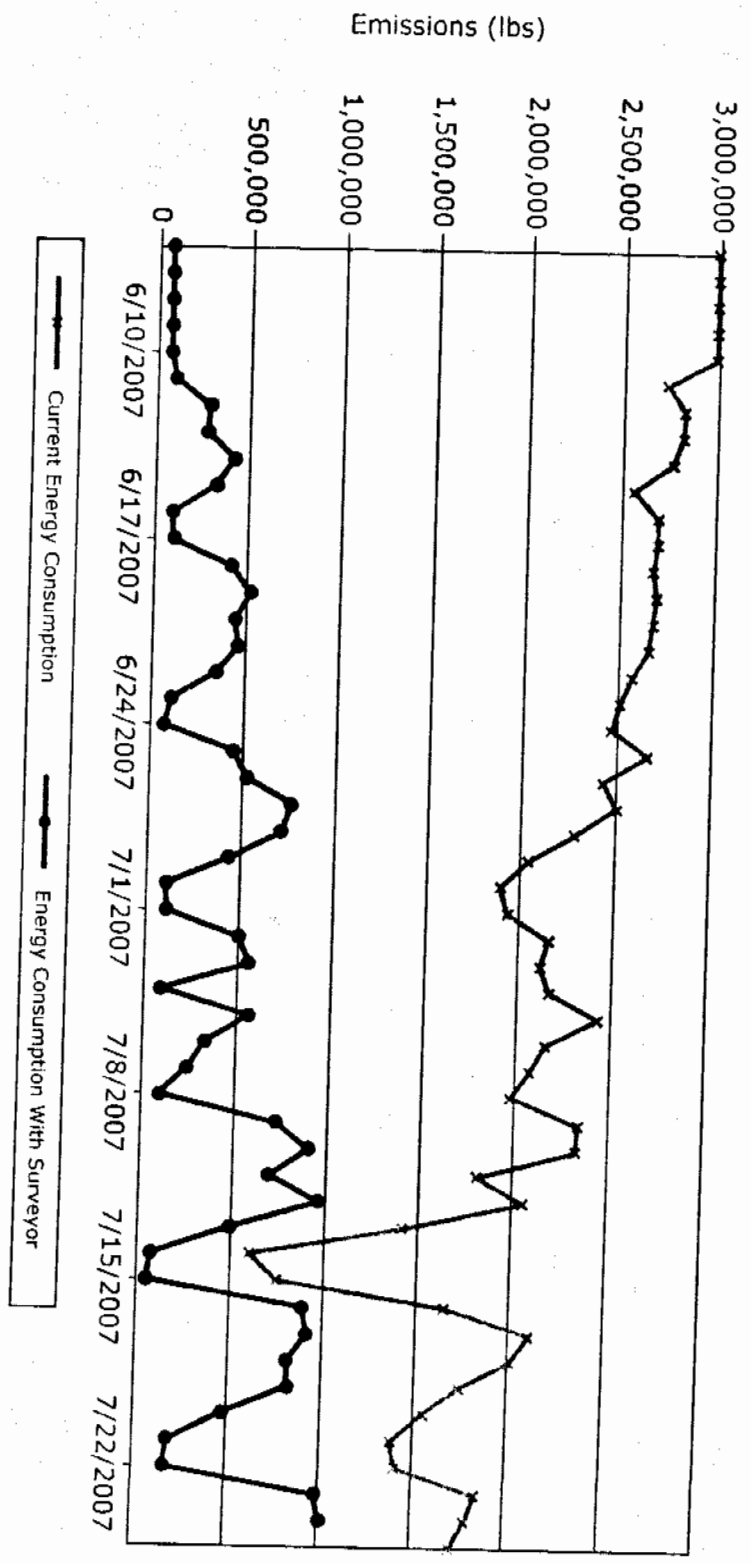
Created By: VERDyEM

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Actual vs. Simulated Power Consumption Tx A&M IU (Info Technology)

Annualized Daily Greenhouse Gas Emissions



Emission quantities are based on the average measured daily emissions, extrapolated to 2,000 PCs.

Actual vs. Simulated Power Consumption for Tx A&M IU (Info Technology)

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VERDIEM

Power Management for PC Networks

1525 Fourth Avenue, Suite 700
 Seattle, WA 98101
 Phone: 206.838.2800 Fax: 206.838.2801

Software Quotation For TAMU

CUSTOMER INFORMATION

Customer: TX A&M International University
 End-User: 5200 University Boulevard
 Address: Laredo, TX 78041
 Contact: LeeBrian Gaskins
 Contact Number: (956) 326-2310
 Email: lgaskins@tamui.edu

VERDIEM CONTACT

Account Executive: Glenn Baker
 Accounts Receivable: 206.838.2803
 Tax ID: 93-1312053

QUOTE INFORMATION

Quote Date: 8-14-2007
 Quote Expiration: 9-14-2007
 Payment Terms: Net 30

Item Code	Item Description	Quantity	Unit Price	Total Price
License	SURVEYOR Software License - Includes first year maintenance	1,000	\$25.00	\$25,000
Services	SURVEYOR Standard Installation and Configuration			\$1,500
	Verdiem is on State DIR Contract - DIR-SDD-485			
	Total			\$26,500

The Software and/or Software Services (including Maintenance & Support Services and Professional Services) itemized hereunder are subject to the terms and conditions of the Verdiem standard form End-User Click-Through Software License & Software Services Agreement ("Agreement"). Such Agreement constitutes the entire agreement between the parties and may not be modified or any term or condition waived, except in writing by a duly authorized representative of Verdiem as evidenced by such party's signature. In the event that any term or condition of such Agreement is modified and/or waived as provided for hereunder, those terms and conditions shall prevail. All prior communications, proposals, quotes, negotiations, representations and/or agreements, whether oral or in writing, related to the Software and/or Software Services itemized hereunder are hereby voided and shall not be incorporated into the Agreement. Additionally, any terms and conditions included or referenced, without limitation, in any purchase order submitted by customer for the Software and/or Software Services shall be void and of no force and effect on the Agreement.

This Quote is only valid for thirty (30) days from the Quote Date, unless otherwise noted. Its issuance and receipt does not obligate the parties to transact business in any way whatsoever. Prices quoted are in U.S. dollars, do not include sales tax and are subject to change without notice or obligation. All Quotes (and any submitted Purchase Orders issued pursuant to a Quote) are subject to the approval of and must be accepted by a duly authorized representative of Verdiem. Purchase Orders for consideration may be faxed to Verdiem, Attn: Finance, at 206.838.2801.