



# Walt Disney World's Energy Star Program

## Disney's Web-based Energy Information Systems

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# Energy Information System

## What is an EIS?

Equipment and computer programs that let Users measure, monitor and quantify energy usage of their facilities and help identify energy conservation opportunities.

August 17-20, 2003

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# EIS Results

- **Energy Project Savings**
  - Quantified with Monthly Billing Data
- **Utility Awards Report**
  - Awards based on analysis of monthly billing data.
  - Winners have largest percent reduction from prior year
- **Utility Billing Errors**
  - Comparison reports are emailed to individuals each month
  - lot's of visibility to data
- **Utility Cost Reimbursement**
  - Quantify Operating Participant Utility Usage

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# EIS Results

- **Identify Utility Waste**
  - Repair defective equipment
- **Redundant Utility Metering**
  - Provides daily checks on meter accuracy
- **Chiller and Boiler Plant Efficiency**
  - Helps identify poor performing plant operation
- **Inefficient Chilled Water Usage**
  - Pinpoints facilities with low chilled water differential temperatures
- **New Facility Design and Utility Budgets**
  - Generated from meter data from comparable facilities

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# Energy Star Buildings Program

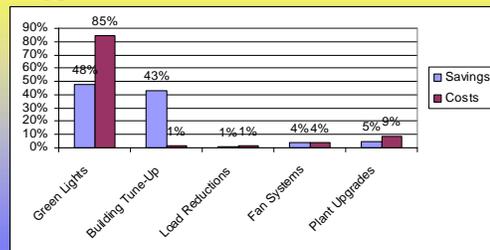
1. Green Lights Upgrades
2. **Building Tune-Up**
3. Load Reductions
4. Fan System Upgrades
5. Heat and Cooling Plant Upgrades



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# Energy Star Results

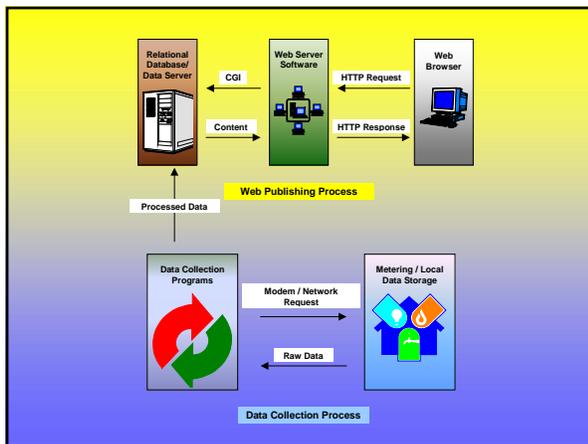
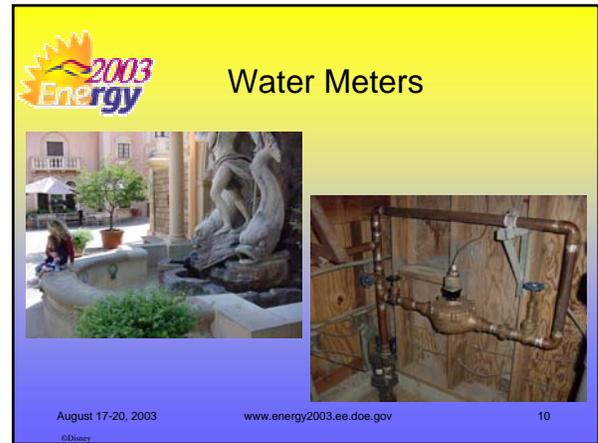
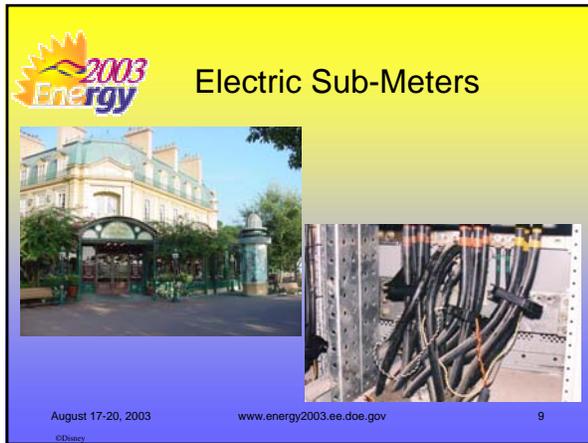
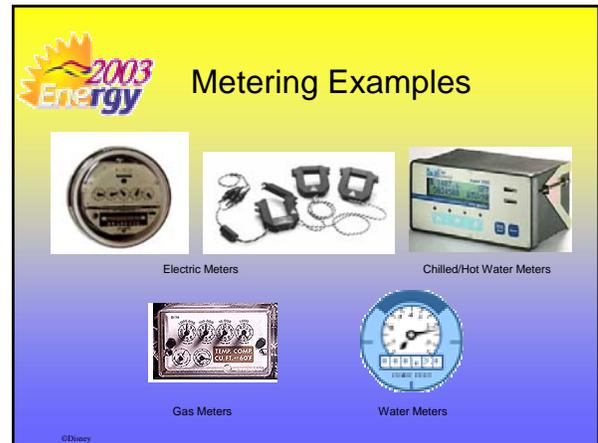
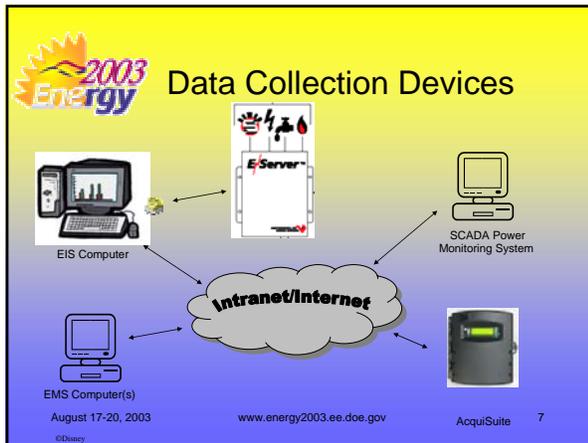


Overall Program Results - 44% IRR

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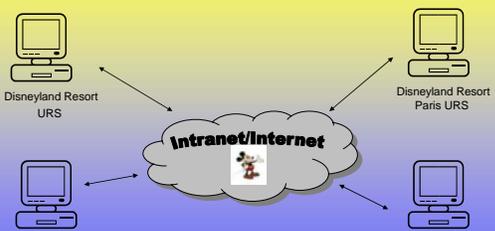


## 2003 Energy Web Programming Tools

- **Server Programs**
  - Windows 2000 Server
  - Internet Information Server (IIS)
  - Microsoft Visual Foxpro
  - Foxweb ([www.foxweb.com](http://www.foxweb.com))
  - KavaCharts ([www.ve.com](http://www.ve.com))
  - Autotask 2000 ([www.cypressnet.com](http://www.cypressnet.com))
- **Client Programs**
  - Netscape
  - Internet Explorer
- **Web Programming Consultant**
  - David Green ([dgreen@dcgreen.com](mailto:dgreen@dcgreen.com))

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**2003 Energy** Utility Reporting System Servers Locations



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**2003 Energy** Utility Reporting System (URS)

- **Intranet Database Program**
  - Use web browser to graph and report utility usage
- **Monthly Billing Data**
  - Utility bill data downloaded monthly from utility
- **Hourly Interval Data**
  - Power monitoring systems
  - Energy management systems
  - Other submetering systems
- [URS Demo](#)



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**2003 Energy** Daily Production Reporting System (DPRS)

- **Daily Plant Production Data**
  - Data Input Daily into SQL Database
  - Some Meters Automatically Totaled and Input
- **Hourly Interval Data**
  - Intellution Plant Control System
  - SCADA Power Monitoring
  - Eserver Data Collection
- [DPRS Demo](#)



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**2003 Energy** Project Tracking System (PTS)

- **Energy Management Project Database**
  - Project Scope
  - Date Completed
  - Energy/Dollar Savings
- **Management Reporting**
  - Project Summary Report
  - Calculation Backup
- [PTS Demo](#)



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**2003 Energy** Building Square Feet Database (BSF)

- **Partnership with WDW Tax Department**
  - Property Appraiser Database
  - Updated Yearly
  - All WDW Buildings
- [BSF Demo](#)



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**2003 Energy** Waste Minimization Program (RWM)

- **Tracks Details on Solid Waste**
  - Comparison to Prior Year
  - Solid Waste Pickup Data
- [RWM Demo](#)



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## Utility Analysis Program (UAP)

- **Utility Submetering Data Analysis**
  - Creates “Virtual Building” using comparable facilities
  - Load Profiles
  - Utility Budget Estimates
- [UAP Demo](#)



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## Utility Reporting System



Visit <http://www.utilityreporting.com>