

Fluke. **Energy answers.**

Energy Audit Program

A program of
Fluke Corporation.

FLUKE®

Opportunity Overview

- Energy costs on the rise and decoupling practices on a state by state basis is making it worse
- Customers are very focused on cost reductions, and energy is one where there is significant attention
 - The cost is controllable
 - Utility rebates and programs are helping but missing a large efficiency opportunity
 - Political focus – short term; stimulus package focusing on energy efficiency
 - Longer term – carbon tax and greenhouse emission limits
- Fluke has a solution, customized for you which has been proven out over the past 8 months
 - Built an energy audit program, with training, process steps, metrics
 - Standardized for any of the broad range of facilities in the corporation

Your customers are looking for answers!

You are looking for growth opportunities and share of customers wallet!



Danaher Energy Kaizen Results

- Based on the rising costs of energy over the past few years, Danaher built an energy audit team with a view to build a tool which can be rolled out to over 200 Danaher facilities
 - Completed energy audit at Kerr/Metrex facility in November 2008
- 12 projects addressed during audit addressing \$1.3M spend on energy & waste
 - Identified \$153k of annualized savings achievable within 30 days of kaizen
 - Resulted in immediate sales of PPE, leak detectors and compressed air components during audit
 - Identified additional \$212k of annualize savings potential with investment of \$200k
 - Majority of capital expenditures lighting and HVAC motors
 - Payback period for projects was less than 1year and CAR's have now been approved
 - Overall 28% reduction in energy and waste cost
- Additional audits at other facilities resulted in savings exceeding \$1.5M
 - Details on www.ActionEco.org
- Planning to execute 28 audits internally this year



Energy Audit Program Overview

Overview:

Commercializing the success of the DHR Audit program by launching an Energy Audit program through Fluke

Step 1: Choose the customer

Target large Corporate customers with multiple facilities who are interested in energy savings

Step 2: Conduct an audit

Fluke audit team works with customer to conduct energy audit at their facility
Audit results demonstrate customer savings through energy saving facility upgrades (\$350k to >\$1.5M per facility)

Step 3: Sell the customer audit kits and energy saving upgrades

Customer purchases Energy Audit sustaining kits for their own use. Fluke trains customers on using audit kits

Customer purchases energy saving product upgrades for their facilities – motors, VSDs, lighting, etc.



What's in it for...

The customer

1. SIGNIFICANT energy and cost savings
2. Development of internal energy audit capability
3. Improved community citizenship

Distributor

1. SIGNIFICANT sales of both Fluke products and energy savings products
2. Establishment of Distributor as a long term partner in energy savings
3. Distributor perceived as a hero to some very key customers

Fluke

1. Sales of test equipment
2. Brand awareness at a customer senior corp level



Fluke's Role

- Energy audit kit provided by Fluke contains three major elements
 - Training (webinars, seminars, etc)
 - Program (pre-work templates, checklists, software, metrics, etc.)
 - Tools
- Program helps users to analyze motors and drives, HVAC systems, steam systems, compressed air, building envelope, lighting, electrical systems, and others
- Tools help to both identify problems and *quantify* savings
- Cost calculators often challenging due to either the lack or accuracy of data
 - Fluke tools providing unbiased data for effective investment decision making
 - Dept of Energy providing guidelines and cost calculators



Audit results:

Mix of investments (<1 year payback) and basic maintenance activities

- Installation of VFD's in cooling tower
 - Investment \$39K, savings \$67K
 - Payback < 1 year
- Calibration of air handlers
 - Investment \$16K, savings \$18K
 - Payback < 1 year
- Update plant lighting
 - Investment \$163K, savings \$187K
 - Payback < 1 year
- Replace faulty air leak system components
 - Investment \$108K, savings \$238K
 - Payback < 1 year
- Scan of the roof top by the Fluke Ti25 revealed heat exhausting onto the roof wasting \$25K per year
 - Fixed air make louvers linkage (disengaged), adjusted BTU's
- Measurement of Power factor \$5K annual penalty
 - Used Fluke 1735 Power logger
 - Capacitor bank optimized
- Scan of facilities compressed air system using ultrasonic testers shows \$18K energy savings
 - Repair air leaks
 - Install PM program
 - Replace compressor filters
- Repair simultaneous heating / cooling of selected occupied space \$7K
 - Identified with 975 AirMeter
- Optimization of air handlers to provide appropriate mix \$18K savings
 - Identified and addressed with 975 and 922 air flow tools
- Vending machines not performing to EPA specs \$6K
 - Identified with DMM
- Identifying and capping roof openings \$7K
 - Tracked issue with Ti25 Thermal Imager



Audit Kit (\$26k list)

- Fluke1735 (3) – 3 Phase Power Logger
- Fluke PV350 (2) – Pressure module
- Fluke i400 – Current clamp accessory
- Fluke 416 – Distance meter
- Fluke 289 FVF (2) – Logging DMM for Pressure, Current, Voltage
- Fluke 561 – IR Thermometer – non contact temperature readings
- Amprobe ULD 300 (2) – Ultrasonic Leak Detector (2)
- Fluke 922 kit – Air Meter
- Fluke 337 – Clamp Meter
- Fluke 975V AirMeter
- Fluke TI-25 Thermal Imager
- Amprobe LM120 – Light Meter
- Amprobe ELS2A (4) – Cable Splitter
- Amprobe GSD600 – Gas Leak Detector
- Panasonic Toughbook (with Fluke Energy Answers software to integrate all applications and ROI calculators)



(2) – Quantity included

Sustaining Measurement Kits (\$8K and \$15K list)

- Fluke1735 – 3 Phase Power Logger
- Fluke PV350 – Pressure module
- Fluke i400 – Current clamp accessory
- Fluke 416 – Distance meter
- Fluke 289 FVF– Logging DMM for Pressure, Current, Voltage
- Fluke 561 – IR Thermometer – non contact temperature readings
- Amprobe ULD 300 – Ultrasonic Leak Detector (2)
- Fluke 337 – Clamp Meter
- Fluke 975V AirMeter
- Fluke TI-25 Thermal Imager
- Amprobe LM120 – Light Meter
- Amprobe ELS2A (4) – Cable Splitter
- Amprobe GSD600 – Gas Leak Detector

