

welcome



www.amicusenergy.com

BACKGROUND

Who Are we

Over 16 years energy experience

Past experience

Air balancing firm

Design/build mechanical firm

Utility ESCO

Energy services arm of major full-service engineering firm

5 1/2 years in independent practice

Registered Engineer in NJ

Certified Energy Manager

LEED Accredited Professional

Principal spent 1 year as NYSERDA contract staff

BACKGROUND

Why we began

Principal had been very active in the start-up of utility Energy Service Company

Challenges

Excessive minimum project size

Bundling of project design and delivery

Minimal in-house technical staff

BACKGROUND

What we offer

Providers of A la Carte Energy Engineering Services

Demand & Supply Side services

Energy Incentive management

NJ SmartStart

NYSERDA

Energy Studies

Retro-Commissioning

Building commissioning

Energy Auditing

Where do you start??



Four Step blueprint for reduction

Analysis

Awareness

Identification

Reduction

Know your energy

How do we use it?

Commonly called Demand Side

How do we purchase it?

Commonly called Supply Side

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Understand Your Utility Bill

Probable charges

Service charge

Demand charge

Usage charges

Societal benefits charge

Possible additional charges

Ratchet

Power factor penalty

Read the utility tariff

ANALYSIS

Understand your usage

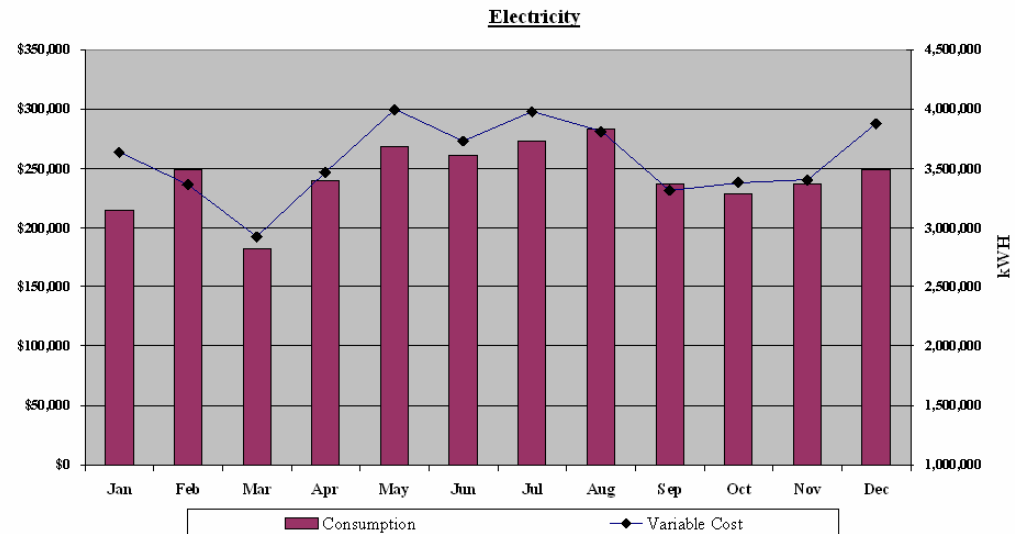
Bill Analysis to pinpoint savings

Weather dependent ?

Production dependent ?

Occupancy dependent

AMICUS



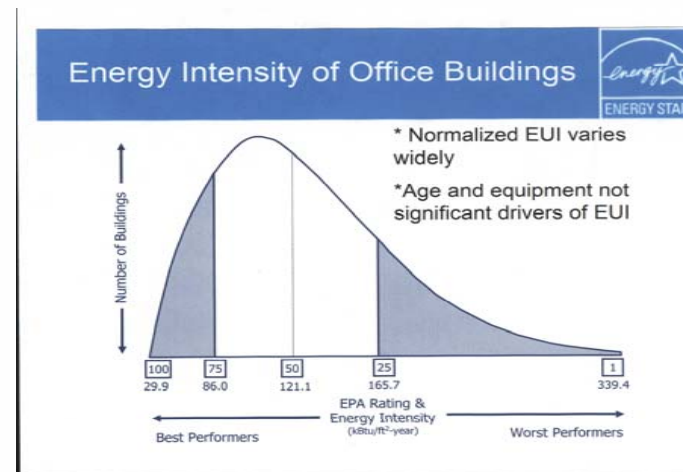
ANALYSIS

Benchmark your facility

*The US Department of Energy's
Energy Star Program will help*

*Compares your building against its
peers.*

*Energy efficiency above the 75th
percentile is eligible for an award*



Facility Energy Profile

How flat is the load profile?

What affects energy use profile?

Weather?

Production?

When is the energy used?

Day?

Night?



AWARENESS

Educate Facility Personnel

Display boards

Show energy cost by departments

Display in work area

Energy training meetings

Newsletter articles

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Formulate Energy Conservation Measures (ECM's)

Conceptual design of ECMs

Description

Cost

Life cycle analysis gives the clearest picture

Savings

This can sometimes be difficult to quantify

Incentives

Evaluating competing programs and eligible equipment can become involved

Implementation time

Set (Realistic) Goals

Set an energy reduction target

Recognize that if the facility is growing, the best you might be able to do is hold the line on energy costs

Understand that constant effort will be required to maintain the energy savings

Potential ECMs

Building envelope

Lighting

Comfort heating/cooling

Energy purchasing

IDENTIFICATION

Lighting

Basics

T12 to T8 conversion in office space

Several T8 to T8 options exist as well

Addition of occupancy sensors to
suitable areas

Twist timers are a good option for
support spaces

Daylighting

Think beyond lighting!

IDENTIFICATION

Comfort Heating/Cooling

Maintenance, maintenance, maintenance

Economizer

Demand controlled ventilation

Heat Recovery

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IDENTIFICATION

Envelope Loss Reduction

Keep windows/doors closed

Do your doors whistle??

Vestibules

Is your building drafty?

Improved Dock Seals

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Rank ECMs

Implementation cost

Including utility incentives

Financial metric

Life cycle cost

Simple payback

Cash-on-cash

Implementation time

Construct Implementation Plan

Group ECMs in some order

Payback

Implementation time

Implementation cost

Adjust to accommodate facility needs and budgets

Don't "cherrypick" !!!

Maintain

Trend your energy usage to confirm the reduction

Continue to track energy usage to guard against “load creep”

Remember that like capital ECMs, low cost/no cost measures also have a lifetime

Anywhere from 1-3 years

Energy usage will return to elevated levels if measures are not maintained

QUESTIONS

Thank you for your attention

Get more information at WWW.amicusenergy.com

Feel free to contact me with any further questions:

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