What is TAP?

DOE's Technical Assistance Program (TAP) supports the Energy Efficiency and Conservation Block Grant Program (EECBG) and the State Energy Program (SEP) by providing state, local, and tribal officials the tools and resources needed to implement successful and sustainable clean energy programs.

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

TAP offers:

- One-on-one assistance
- Extensive online resource library, including:
  - ➢ Webcasts
  - ➢ Events calendar
  - ➢ TAP Blog
  - ➢ Best practices and project resources
- Facilitation of peer exchange

On topics including:

- Energy efficiency and renewable energy technologies
- Program design and implementation
- Financing
- Performance contracting
- State and local capacity building

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Access the TAP Blog!
http://www.eereblogs.energy.gov/tap/

Provides a platform for state, local, and tribal government officials and DOE's network of technical and programmatic experts to connect and share best practices on a variety of topics.

Accessing TAP Resources

We encourage you to:

1) Explore our online resources via the Solution Center

2) Submit a request via the Technical Assistance Center

3) Ask questions via our call center at 1-877-337-3827 or email us at solutioncenter@ee.doe.gov

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Please join us again:

Title: **The Role of the Public Utility Commissioner in Energy Efficiency Program Delivery**
Date: **August 31, 2011**
Time: **3:00-4:00 EDT**

Title: **EECBG Portfolio Manager Initiative**
Date: **September 6, 2011**
Time: **1:00-2:00 EDT**

For the most up-to-date information and registration links, please visit the Solution Center webcast page at www.wip.energy.gov/solutioncenter/webcasts

- **Behavior Change Overview & Resources**
  - Jen Clymer - ICF International and DOE TAP
- **Institutionalizing Energy- and GHG-related Behavior Change: Perspectives from the Federal Energy Management Program**
  - Amy Wolfe - Leader, Society-Technology Interactions Group, Oak Ridge National Laboratory
- **Miami-Dade County's Energy Behavior Change Initiatives**
  - Maggie Fernandez - EECBG Program Manager, Miami Dade County Office of Sustainability
  - Patricia Gomez - Sustainability Program Manager for Energy & Infrastructure, Miami Dade County Office of Sustainability
- **Using Behavior Change to Increase Energy Efficiency at the City of Austin**
  - Mary Priddy - Climate Program Coordinator, City of Austin Climate Protection Program

- **Q&A** (*use the goto questions feature to type your questions in*)

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

High tech does not always mean high performance:

- Buildings energy-renovated since 1980: 99 kbtu/sf*

- Buildings with envelope upgrades: 107 kbtu/sf*

- Buildings with hours of use reduction: 85 kbtu/sf*

- Buildings with no renovation since 1980: 79 kbtu/sf*

*U.S. Energy Information Administration, Commercial Building Energy Consumption Survey, 2003

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

Implication:

- ***Energy-efficient technologies <u>alone</u> are not driving performance; people are…***
  - Large portion of savings comes from O&M, but every occupant can contribute
  - Overcoming mindsets and organizational barriers key

Tenets of Behavior Change

- Encourage (and model) positive behavior, don't dwell on negative behavior[*]

- Evoke the Golden Rule[*]

- Promote the human-scale benefits of efficiency, not just conservation as a means to an end

- Keep it SIMPLE: Tell them what to do and where to do it

- Exploit our competitive nature

- Recognize and reward achievement, big and small

[*] Cialdini, Robert B. 2010. "Influencing Change: Applying Behavioral Science Research Insights to Reframe Environmental Policy and Programs." Presentation at the Behavior, Energy & Climate Change Conference, Sacramento, California, November 14. http://peec.stanford.edu/events/2010/becc/

Components of Successful Behavior Change Programs

- Alignment with Strategic Energy Management Plan

- Leading By Example

- Training

- Peer Exchange Forums (Interdepartmental and Regional)

- Competitions/Incentives

- Web/Electronic Communication

- Print Communication

- Recognition/Reward

Employees should be educated, empowered and rewarded for energy efficiency

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

DOE TAP White Paper [in development]: *"Developing a Municipal Energy Efficiency and Conservation Policy for Employees"*

- Assists communities to develop energy efficiency policy guidelines for employees

- Provides sample language and structure for energy efficiency policy directives

- Shares lessons learned from employee engagement and energy education programs

- Includes links to other behavior-based policies, programs and resources

Connect with your peers on behavior change!

9/20/11, 2-3PM EST

    -- Residential Sector Behavior Change Programs

9/21/11, 2-3PM EST

    -- Commercial and Government Sector Behavior Change Programs

Discussion will include:

1. How to engage building occupants to adopt energy efficiency behaviors

2. How behavioral programs enhance the long-term savings potential of retrofitted buildings

3. Recommendations and lessons learned on how to measure the effect of behavior change on the total outcome of the retrofit project

On-going Group Peer Exchange

To sign up, please send an email as follows:

To: Zach Abrams, zabrams@icfi.com

Subject: (select #1, #2 or #3)

> *1. 9/20 Peer Exchange on Residential Behavior Change*
>
> *2. 9/21 Peer Exchange on Commercial and Government Sector Behavior Change*
>
> *3. 9/20 and 9/21 Peer Exchange on Behavior Change (will attend both groups)*

Include a **1-2 sentence description** of the types of behavior change projects you are implementing, or are interested in learning about. Please include any additional information you feel would be useful to the organizers.

Participants will receive a confirmation response with the call in-number, and will be asked to self-select the status of their behavior change projects (interested/implementing, etc).

INSTITUTIONALIZING ENERGY- AND GHG-RELATED BEHAVIOR CHANGE

LESSONS FROM A U.S. DOE FEDERAL ENERGY MANAGEMENT PROGRAM (FEMP) INITIATIVE

U.S. Department of Energy
Technical Assistance Program Webcast
August 25, 2011

Amy K. Wolfe[1], Rick Diamond,[2] Elizabeth Malone,[3] Christopher Payne,[2] Tom Sanquist,[3] and Jerry Dion[4]

[1]Oak Ridge National Laboratory; [2]Lawrence Berkeley National Laboratory; [3]Pacific Northwest National Laboratory; [4]U.S. Department of Energy, Federal Energy Management Program

TODAY'S TALK

- FEMP initiative—context and goals
- Roles, Rules, and Tools approach
- Evidence-based principles
- Translating principles into action
- Benchmarking, metrics, evaluation

PEOPLE MATTER

"People, not machines, make the decisions that affect energy use. Insight into the human dimension of energy use is key to better understanding future energy trends and how to act effectively to manage them."

Schipper and Meyers, *Energy Efficiency and Human Activity*.
Cambridge: Cambridge University Press, 1993

ENERGY MYTHS

- Everyone needs (and *wants*) more information
- Providing information about energy use will change behavior
- Most people have a pretty good idea of where energy is being used
- Saving energy = Saving money = Motivation

TEAM SEEKS TO HELP AGENCIES TAKE ACTION TO ACHIEVE AND SUSTAIN FEDERAL SUSTAINABILITY GOALS

…significant, permanent changes in energy use and environmental impact from evidence-based approaches to institutional change

- Strategic
  - Points of leverage within organization
- Goal-oriented
  - Links between approaches and desired goals
  - Measurement and evaluation
- Evidence-based, systems-oriented, analytical
  - Interactions among technologies + policies + behavior
  - Ideas that do/don't work across settings
- Tailored
  - Roles, Rules, and Tools approach

IMPLEMENTATION GUIDANCE—*NOT* BUSINESS-AS-USUAL WITH A SUSTAINABILITY OVERLAY

Framework oriented toward *fundamental, long-term change* in how agencies will operate *automatically*

Recognizes that:

- Organizational/institutional change occurs at multiple levels:
  - Cultural/institutional
  - Physical infrastructure
  - Business processes
  - Individual
- Many implementing processes are involved at each level
- Changes at organizational and individual levels are tightly coupled

Guidance/resources structured around roles, rules, and tools…
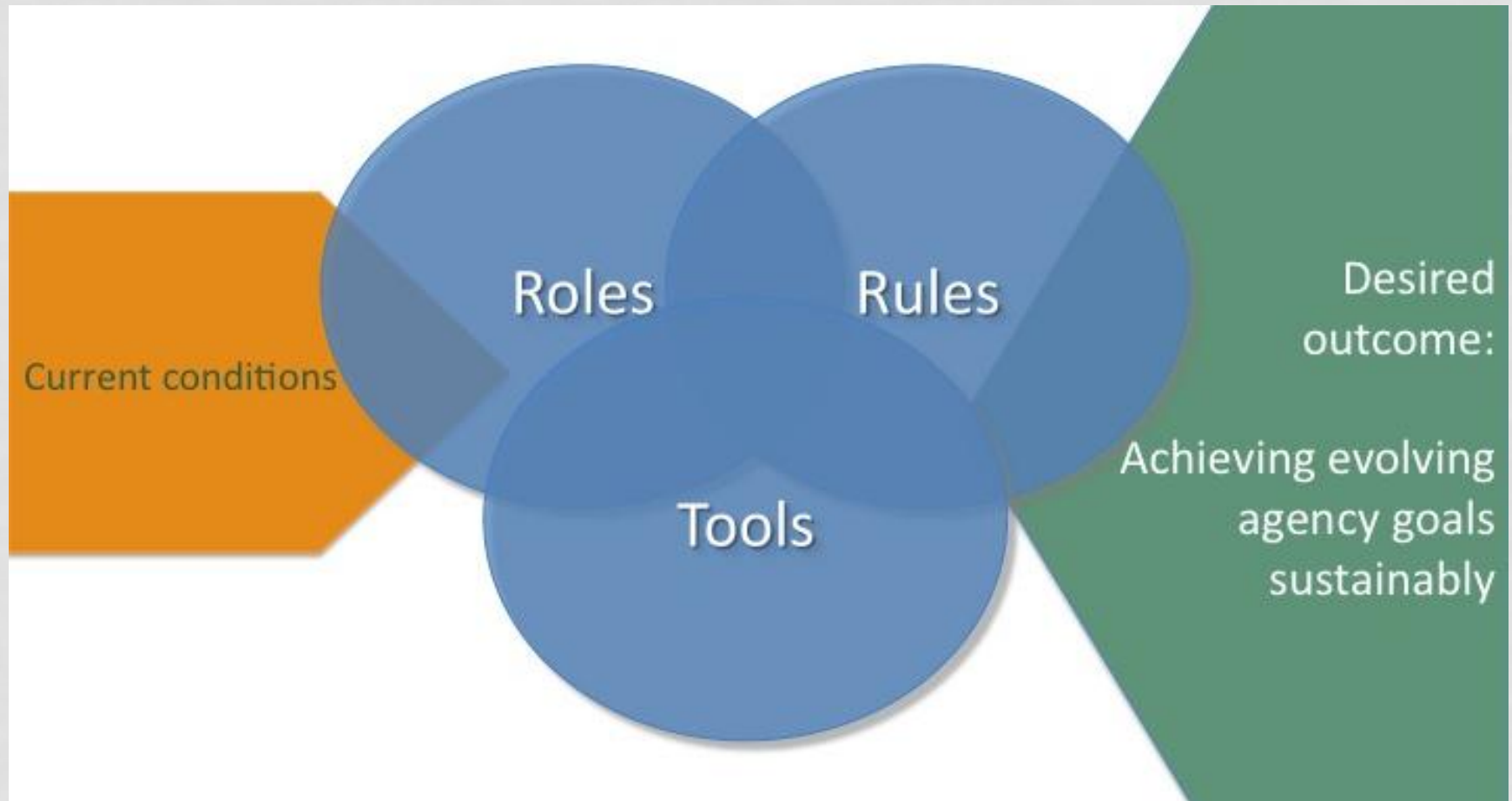
Guidance/resources structured around roles, rules, and tools…
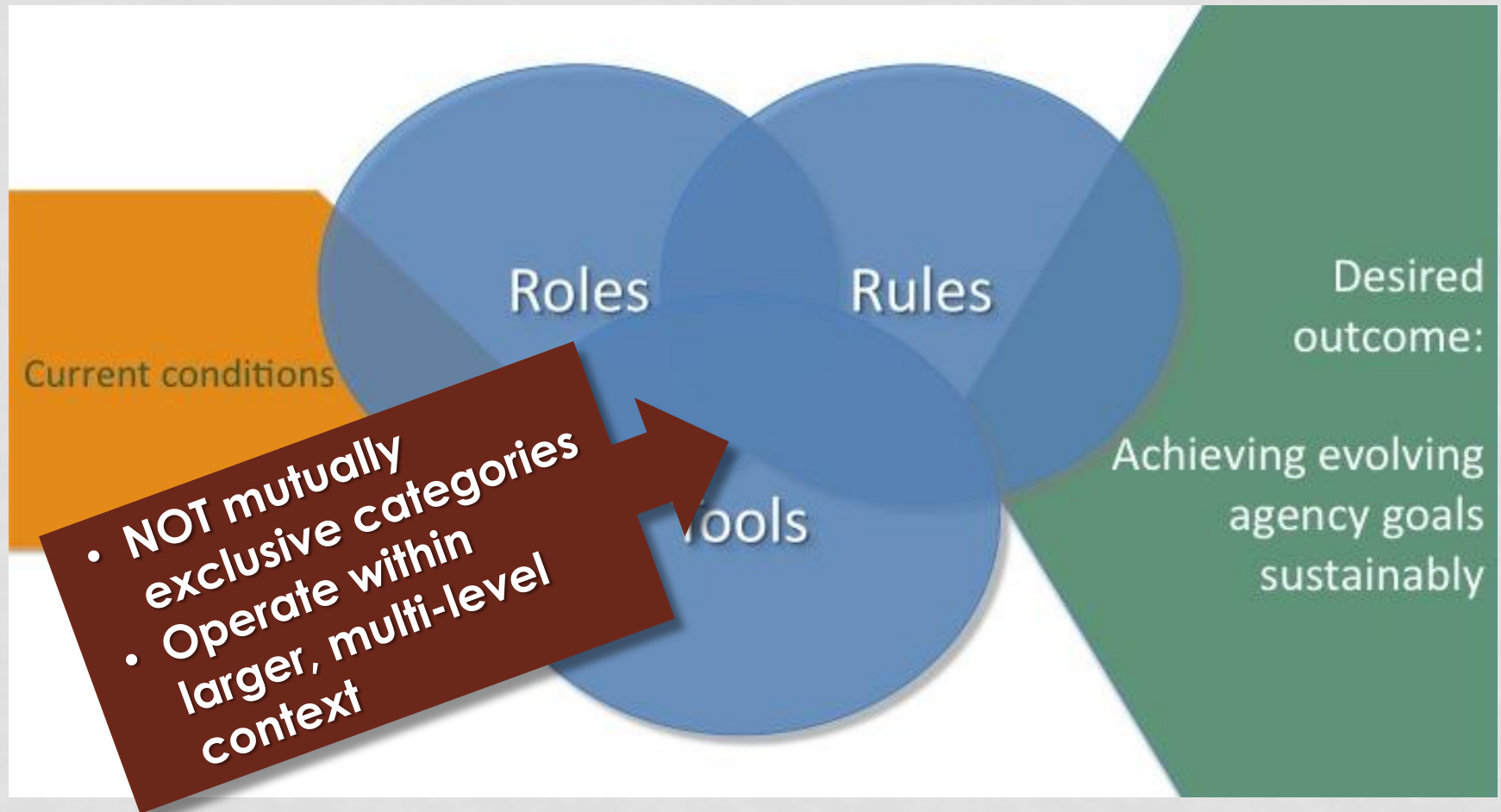
GUIDANCE/RESOURCES STRUCTURED AROUND ROLES, RULES, AND TOOLS…

- Behavior + institutional changes
- Behavior—key to reducing gap between designed vs. achieved technology and policy goals
- Challenge—to translate evidence and experience into effective practice

Current con

sired
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lving
goals
nably

WE DERIVED 8 INITIAL PRINCIPLES, BASED UPON PUBLISHED LITERATURE

- Social Network and Communications Principle
- Multiple Motivations Principle
- Leadership Principle
- Commitment Principle
- Information and Feedback Principle
- Infrastructure Principle
- Social Empowerment Principle
- Continuous Change Principle

THE 8, LITERATURE-DERIVED INITIAL PRINCIPLES

- Social Network and Communications Principle
  - Institutions and people change because they see or hear of others (individuals, groups, institutions, firms, etc.) behaving differently, so
    MAKE SURE STAFF SEE OR HEAR ABOUT OTHERS WHO HAVE CHANGED THEIR OFFICE SETTINGS OR PATTERNS OF BEHAVIOR

- Multiple Motivations Principle
  - Institutions and people almost always change their ways of doing things for more than one reason, so
    MAKE DIFFERENT AND COMBINED APPEALS

- Leadership Principle
  - Institutions and people change because the workplace rules change and visible leadership communicates management commitment, so
    BE VISIBLE AND DEMONSTRATE COMMITMENT

THE 8, LITERATURE-DERIVED INITIAL PRINCIPLES, CONTINUED

- The Commitment Principle
  - Institutions and people change when they have made definite commitments to change, especially when those commitments relate to future conditions ("save more tomorrow"), so
    ASK FOR SPECIFIC COMMITMENTS

- The Information and Feedback Principle
  - Institutions and people change because they receive actionable information and feedback, so
    PROVIDE TOOLS AND RESOURCES TAILORED TO SPECIFIC WORKPLACE SITUATIONS

THE 8, LITERATURE-DERIVED INITIAL PRINCIPLES, CONTINUED

- Infrastructure Principle
  - Institutions and people change because a changed infrastructure makes new behaviors easy and/or desirable, so *CHANGE DEFAULTS (INDOOR TEMPERATURE, PRINTER SETTINGS, WALK-ABILITY OF HALLS AND STAIRWELLS, PROVISION OR NO PROVISION FOR PARKING, ETC.) AND PROVIDE MOTIVATIONS AS WELL AS INCENTIVES TO USE INFRASTRUCTURE DIFFERENTLY (E.G., SPECIAL STATUS/BENEFITS FOR VAN POOL AND PUBLIC TRANSPORTATION USERS)*

- Social Empowerment Principle
  - Institutions and people who feel they can reach desirable social goals – often do, so *INVOLVE PEOPLE IN PROGRAM DESIGN AND PROCESSES*

- Continuous Change Principle
  - Cultural change takes time, so *PLAN FOR A MULTI-YEAR PROCESS*

Translating Principles into Action

Principles *are*

- *Foundation* for strategies to meet goals

Principles *are not*

- Strategies that are guaranteed to achieve end goals

Strategies should align with goals
- Instigate vs. sustain change (short vs. long term)
- Broadcast vs. strategic, targeted audience
- Energy or GHG reduction vs. engagement

TRANSLATING PRINCIPLES INTO ACTION

Principles *are*

- Foundation for strategies to meet goals
- Suited to particular goals

Principles *are not*

- Strategies that are guaranteed to achieve end goals
- Suited for *all* goals

Principles are *not* a menu of equivalent, substitutable choices

TRANSLATING PRINCIPLES INTO ACTION

Principles *are*

- Foundation for strategies to meet goals

- Suited to particular goals

- Clearly able to add value in some cases

e.g., Multiple Motivations & Continuous Change Principles

Principles *are not*

- Strategies that are guaranteed to achieve end goals

- Suited for *all* goals

- Robust or well-tested in all contexts

Literature does not focus on *organizational* (vs. individual) or *persistent* (vs. initial) change
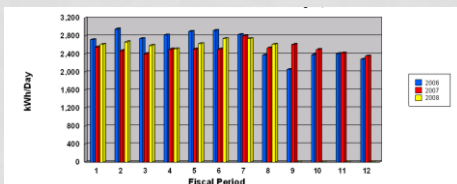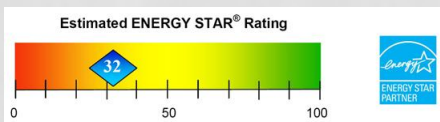
Benchmarking/measurement/evaluation: to gauge impacts of interventions + behavior change tool

Benchmarking

- Reference point
- Encompasses *energy consumption* **+** *organization practice*
- Requires common units of measure

Estimated ENERGY STAR® Rating

Some benchmarking options

- ENERGY STAR Portfolio Manager
  - Compares energy performance of facilities to similar buildings nationwide
- Energy IQ
  - Web-based implementation of LBNL's Action-Oriented Benchmarking System for non-residential buildings
- Cal-Arch
  - For whole-building energy (California commercial buildings)

Benchmarking/measurement/evaluation: to gauge impacts of interventions + behavior change tool

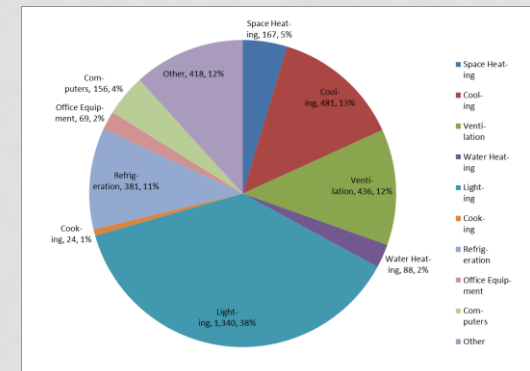## Metering

- Can provide
  - Dashboards
  - Energy management systems
- Varying levels of precision
- Data to meet the needs of varying audiences
- Can and should support evaluation

Evaluation

- Interim and process evaluations—to refine interventions
- Outcome evaluations—need end use data

Percentage of total electricity used in US commercial buildings by end use: BTU, % total (2003)

SUGGESTIONS FOR APPLICATION TO ORGANIZATIONAL SETTINGS

- Use existing data sources/expert knowledge to identify critical end goals
- Identify low-cost/no-cost behavioral interventions that align with end uses
- Understand the operational/logistical barriers/myths to implementation
- Select interventions with high likelihood of adoption and payoff based on initial site surveys
- Implement-measure-modify as required
- Expand to more challenging end uses

WE INVITE YOUR INPUT AND PARTICIPATION!

Contact information

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Jerry Dion (Jerry.Dion@ee.doe.gov)

MIAMI-DADE COUNTY

U.S. Department of Energy - TAP

Using Behavior Change Programs to Increase Energy Efficiency

August 25, 2011

Today's Presentation

MIAMI-DADE COUNTY
Greener Every Day

- g-Net: An Employee's Resource for Everything Green

- Peer Groups & Training

- Power IT Down Initiative

- Integrated Dashboard

Miami-Dade Office of Sustainability

- Coordinate and assist organization-wide and department-level change towards sustainable government culture, operations and service delivery.

- Collaborates with County agencies, business groups, nonprofit organizations, and other partners to protect and enhance Miami-Dade's distinctive environmental quality and livability.

- Implement the County's Sustainable Buildings Program

- Implement the County's Energy Efficiency and Conservation Block Grant Program

- Leads the implementation of the County's sustainability plan, GreenPrint

- Nearly 100 public meetings were held
- *County's first Sustainability Plan*
- Culminates in C*ounty's first Climate Action Plan*
- 137 separate initiatives outlined in GreenPrint:
  - Initiatives that contribute to behavior change: Incentives for County employees to save energy – Idea machine, Countywide energy reinvestment fund….
  - o estimated reduction of 1.5 million metric tons of GHG emissions and avoidance of 3.1 million metric tons over the next five years

Energy Efficiency Campaign

External Outreach to Community

- Branding and Launch of green.miamidade.gov
- Light bulb & Showerhead Exchange
- Home Energy Savings Workshops
- $750 Savings Challenge
- Green Business Certification & Incentives
- Residential Rebates

Internal Outreach to County Workforce

- Employee Green Pledge
- Power IT Down Initiative
- Launch of G-Net

MIAMI-DADE green

gNet
the county employee's
resource for everything green

- G-Net, a one-stop, green online site for Miami-Dade County employees

- G-Net serves as a "green" resource and provide tools for County employees - from an architect designing a County facility, to a records clerk, and to a bus operator

Green Links

Green at Work

Commuting to Work

Green Purchasing

Green Building

Green Savings Tools

Green Training & Peer Groups

Green at Home

gNet Home
Employee Green Pledge

Miami-Dade green

Peer Groups & Training

Green Training & Peer Groups

Succeeding in transforming Miami-Dade County into a more sustainable place to work dep[...] part on talented County employees. Check out the following training opportunities and pee[...] available for County staff interested in becoming more knowledgeable about sustainability[...] environment.

Sustainability Peer Groups

- **Resource Conservation Committee**
  With employee representatives from 50 Miami-Dade County departments, the Resource Conservatio[...] (RCC) goal is to promote, facilitate and monitor the efforts of all County employees in waste reduction[...] environmentally preferable products. Through their efforts a comprehensive recycling program for Co[...] expected to launch in the coming year.

- **Sustainable Buildings Committee**
  This committee is comprised of departmental Sustainability Liaisons and other technically knowledg[...] representatives from key County agencies. Through their expertise, the Sustainable Buildings Progra[...] with the County's sustainability Green Building initiatives.
  - See the list of Committee members
  - For access to the County's Sustainable Building Sharepoint, please call the Office of Sustainabili[...] 5593.

- **Energy Management Liaisons**
  This group includes director-appointed department representatives who are charged with coordinatin[...] achieve the goals of the Electricity Reduction Ordinance, which requires the County to reduce elec[...] consumption 20 percent below 2007 levels by 2014.

Miami-Dade green

POWER IT DOWN

MIAMI-DADE green

MIAMI-DADE COUNTY
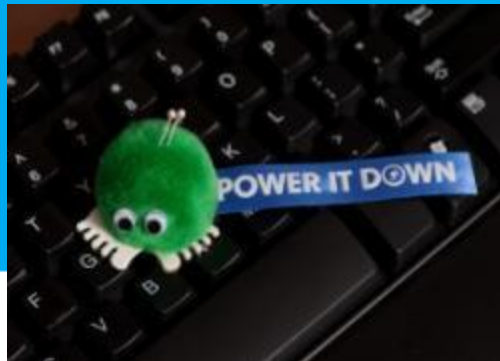
County % and Estimated Consumption Savings
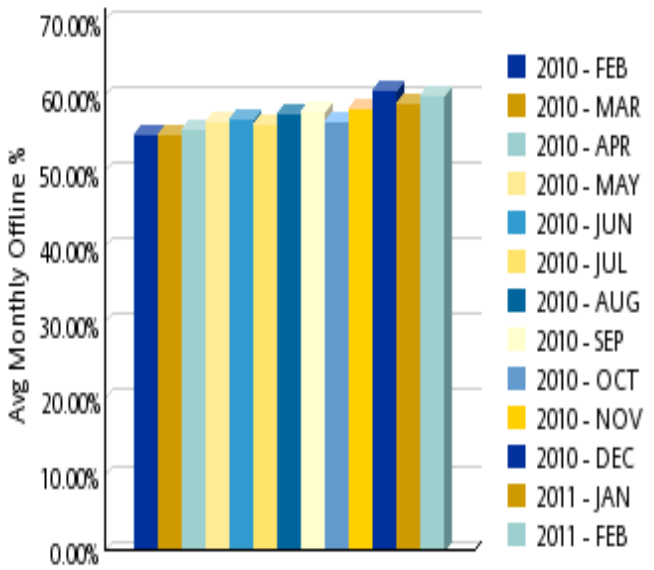
Average Offline %	Offline Savings
57.41%	$248,992.15

** Note: County offline statistics and consumption savings are cumulative for the last 12 months. Consumption savings are estimated at $.0756 per computer placed offline for the day.

Average Monthly Percentage Offline

Avg Monthly Offline %

- 2010 - FEB
- 2010 - MAR
- 2010 - APR
- 2010 - MAY
- 2010 - JUN
- 2010 - JUL
- 2010 - AUG
- 2010 - SEP
- 2010 - OCT
- 2010 - NOV
- 2010 - DEC
- 2011 - JAN
- 2011 - FEB

Select one or more and click 'Finish'

Bldg Code Compliance
Board of County Commissioners
Building & Neighborhood Compliance
Capital Improvements
Citizen's Independent Transportation Trust
Clerk of Courts
Commission on Ethics and Public Trust
Community Action Agency
Consumer Services
Corrections and Rehabilitation
County Attorney
County Executive Office

Finish

View Offline Percentages for: All Departments

25.00%

0.00%   100.00%
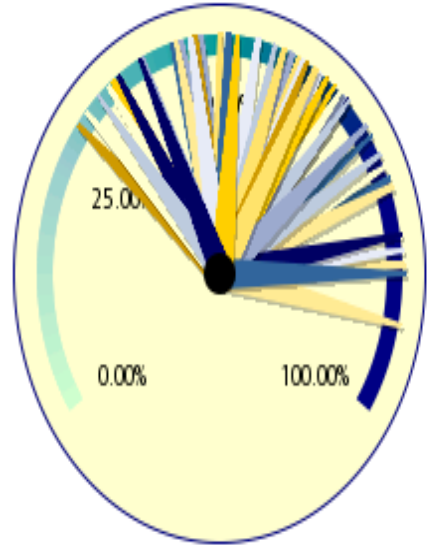
Integrated Dashboards

Enterprise Energy Management Project

- Energy management functionality to better manage and reduce county-wide energy consumption

- Use of accounting and energy management software and equipment (meters/sub-meters)

- **Real-time building dashboard interfaces**

- Analyze energy consumption across electric accounts and within specific facilities (asset level)

  - Improve upon our existing GHG emissions tracking activity

Miami-Dade
green

FLORIDA POWER AND LIGHT (FPL)
ELECTRONIC DATA INTERCHANGE (EDI)
Pilot Project and County-wide Processing
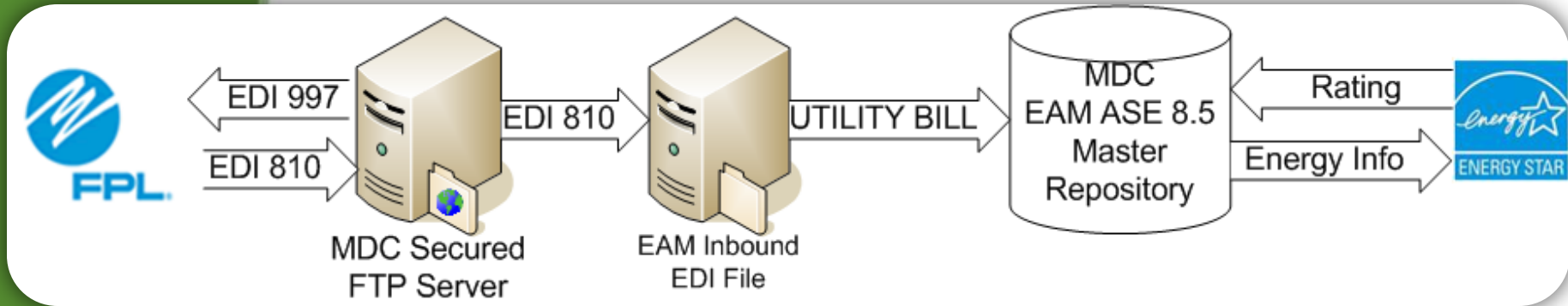
Utility Billing Management Enterprise Solution

County-wide Utility Billing Management System for tracking, reporting, managing, and archiving energy savings and issues within the County

Pilot Project Goals

- Minimum annual 5% reduction in energy consumption

- Use UM Assessment, EAM ASE Tracking, and Energy Star scores to identify where to apply improvements

- Metering at the Utility Entry point

    – i.LON data aggregate

    – Sub-metering at the floor level (competitions)

    – Integration with Building Management Systems (BMS).

Sustainability Pilot Project

Enterprise-wide and Facility Based Energy Management Systems Upgrade and Coordination
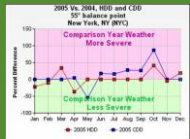
Metronet

Utility Bill
EDI 810 & 997

810

997

Secured FTP

Utility Bill

Financial Systems
FAMIS/ERP

PAID

Utility Billing
Management System

Facility

Sub Meters

Degree Days

Utility Bill

Degree Days

Metered Assets Data

i.Lon Server
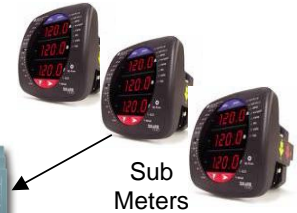
Energy Star Rating

Facility Information

Portfolio Manager

Building Management System (BMS)

Infor EAM Enterprise Edition

BASE MODULES
ASSETS	ASSET MGMT SERVICES	AUDITS	BUDGETS
CALL CENTER	INBOX/KPIs	INSPECTIONS	MATERIALS
MESSENGER	PROJECT MANAGEMENT	PURCHASING	WORK MANAGEMENT
ANALYTICS	21 CFR 11 CALIBRATION	iPROCURE	DATABRIDGE
GIS INTEGRATION	MOBILE SOLUTIONS	ADVANCED REPORTING	WEB SERVICES TOOLKIT

Asset Sustainability Edition

ENERGY INTEGRATION PROGRAM

FUGITIVE EMISSIONS MANAGEMENT

ALERT MANAGEMENT

CO2 MANAGEMENT

PLANNING

PROCUREMENT ENGINEERING

CONFIGURED KPIs, Inbox, Reports

Alerts
Metered Assets Data

EAMS ASE
Start Center
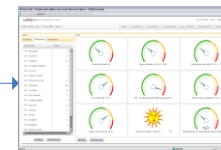
Facility Manager
Energy Portal

Citizen Dashboard

Infor Enterprise Asset Management (EAM)
Asset Sustainability Edition (ASE) System
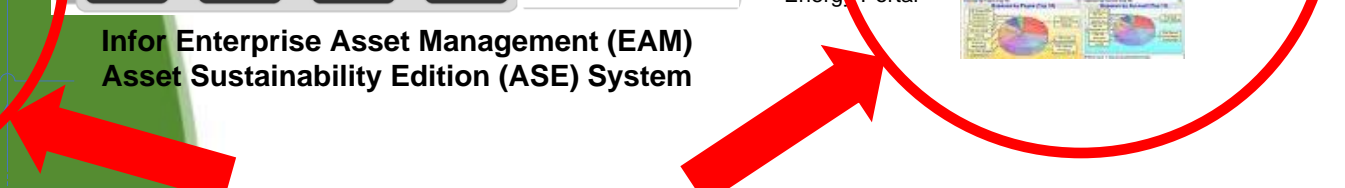
Enterprise Sustainability Platform (ESP)
How does it work?

Data Collection

Analyze Data

Measure Results

Apply Changes

Miami-Dade green
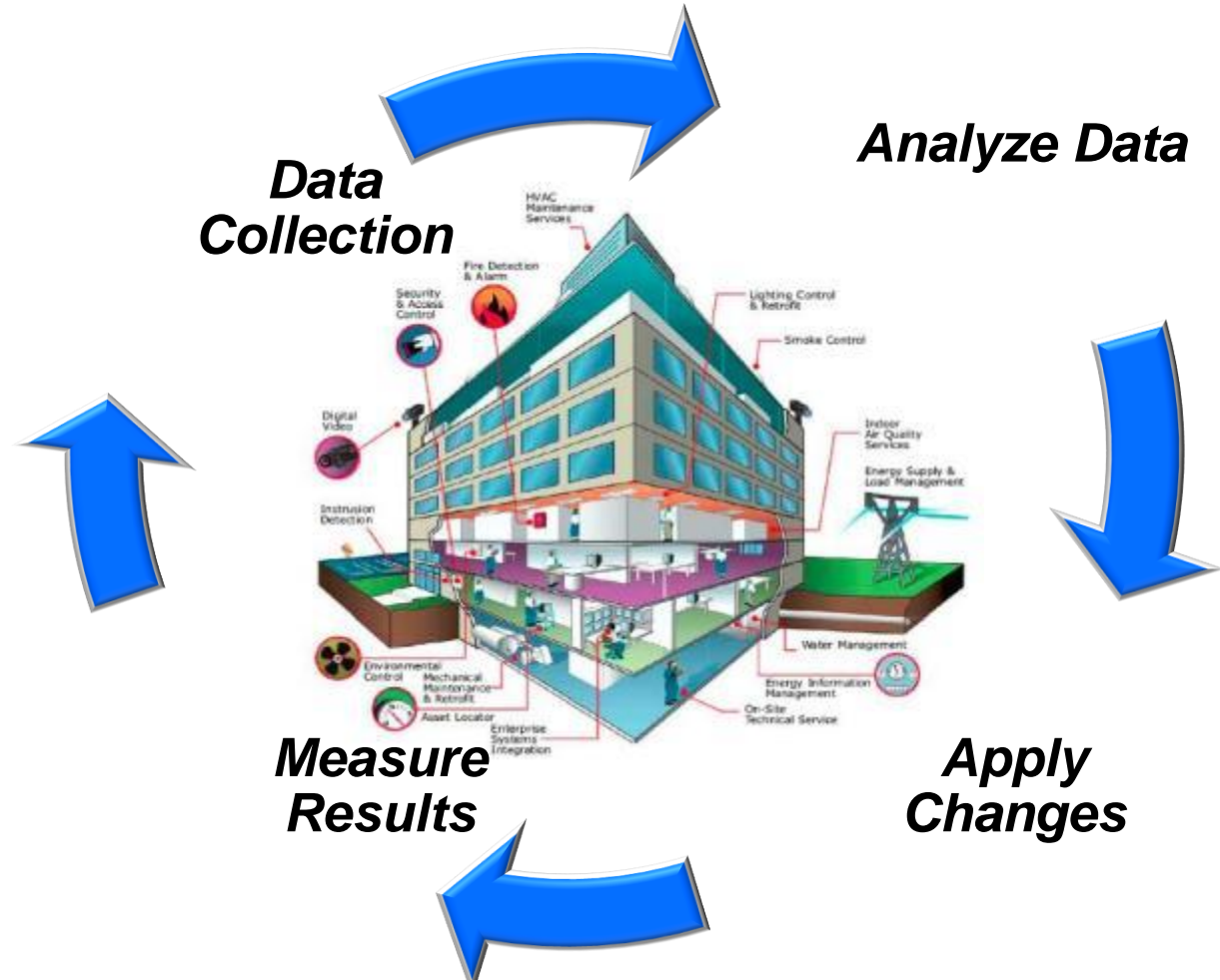
"Sustainability is a pursuit," "It's not a state that you arrive at." Alcalde – *by Kate Galbraith*

Dashboard
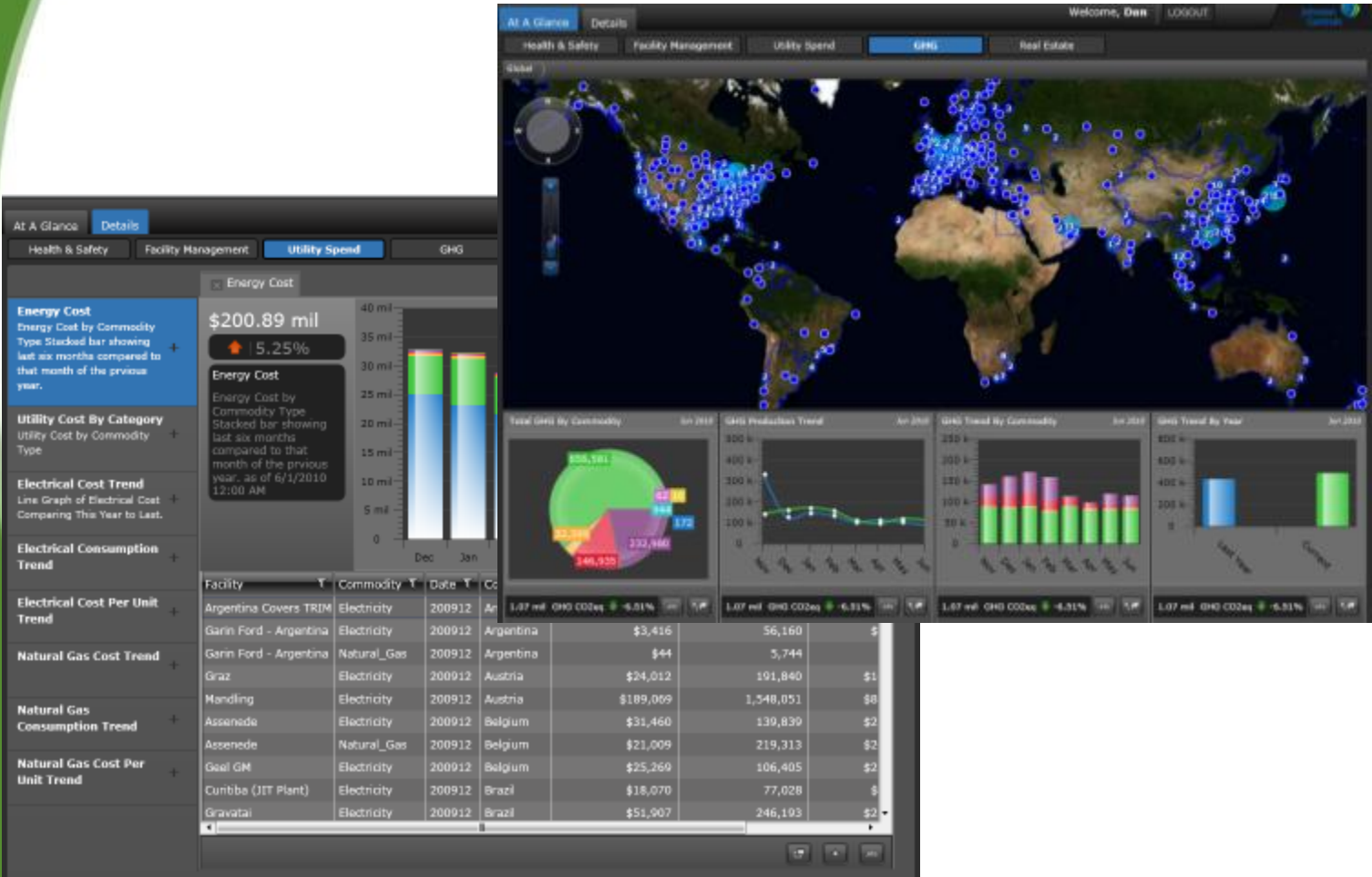
Deployment

Wall Mounted / Kiosk – Metrics Overview
- Could be touch screen drill or group reviews

Function Management Portal Dashboard
- Functional Measures, trends and alerts
- Accessed via Employee Portal
- Drillable to transaction detail

Mobile Dashboard
- Critical Metrix for Responsible Manager
- Notification / Alerts for out of tolerance
- Daily Updates

Executive Office Dashboard
- Dedicated Touch screen Monitor
- Key Metric direct from enterprise systems
- Daily Updates
- Online drill capability

Miami-Dade green

THANK YOU!

Miami-Dade County

Office of Sustainability

Maggie Fernandez – fmaggie@miamidade.gov

Patricia Gomez - gomezp@miamidade.gov

305-375-5593

green.miamidade.gov

Behavior Changes to Increase Energy Efficiency

Mary K. Priddy

Austin Climate Protection Program

August 25, 2011

Agenda

- Education and Training
- Climate Action Team (CAT)
- Executive Commitment
- City Programs
- Department Competitions

Education and Training

- Developed Employee Training Program
- Over 40% of employees have completed training
- Tailored training to department needs
- On-line version available for public safety departments
- Anti Idling stickers on City vehicles
- Signage in City buildings – recycling, monitors and lights
- Address new employees during orientation
- Presented to over 5300 citizens at 90 locations in 2011

OFFICE
of Sustainability

Climate Action Team (CAT)

- Teams from each department help establish short & long term targets for reductions in Energy, Water, Waste, Transportation, Purchasing and Education

- Grass roots effort

- Enter usage information to shared website to gauge progress

- Identify barriers and solutions to trends

- Present success stories at monthly meetings

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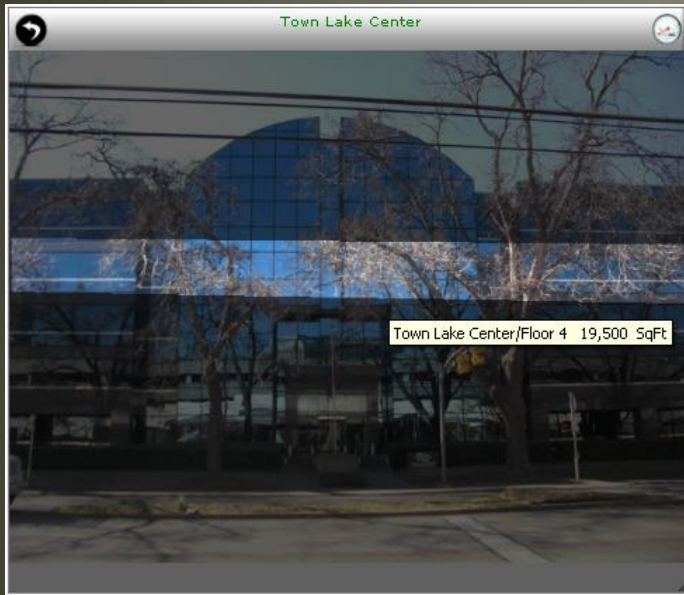
Executive Commitment

- GHG reduction metric in performance reviews for upper management

- All conservation plans require Executive sponsor

- Email reminders from City Manager on energy conservation measures employees can take

- All City facilities to be powered by renewable energy – pending budget approval – by Oct 11

- Completes top to bottom approach to reduction

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City Programs

- Environmental Awareness Awards – COA department has a specific category

- City Cycle – Bicycles and scooters available to employees for short commutes

- Car2GO – Smart Cars available for employee use

- Nightwatchman Software – Turns computers off while allowing IT to make upgrades/patches

- One Green Step - Inspires people to commit to small, personal green steps to help make Austin cleaner and greener
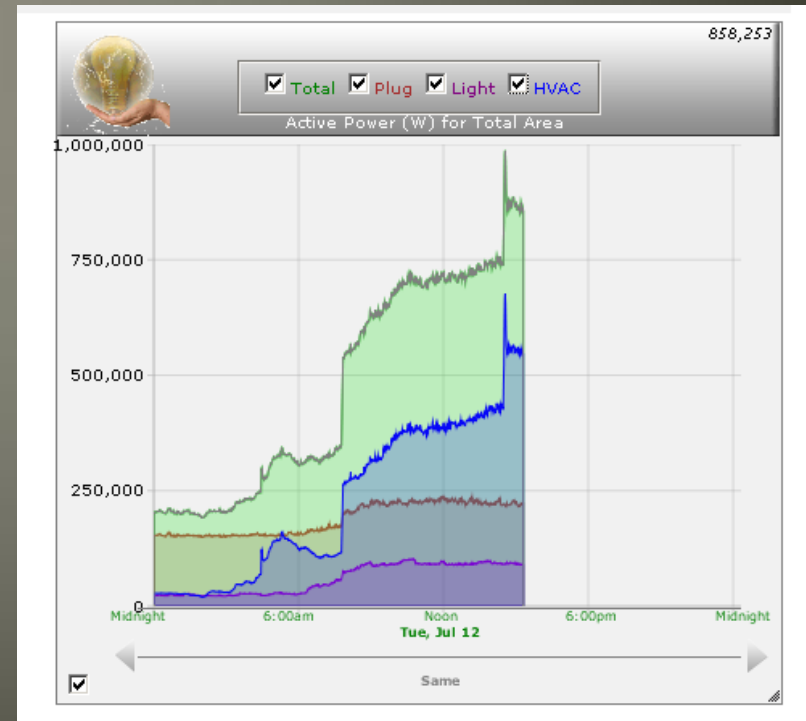
OFFICE
of Sustainability

City Program –SMARTE (Pilot)

Town Lake Center
Town Lake Center/Floor 4 19,500 SqFt

- Real-time monitoring
- Sub-metering for floor areas
- Accessible to all AE employees

Used to increase awareness of energy reductions from load shedding events, more efficient IT assets, and personal office equipment restrictions

Department Conservation Competitions

- Council Office Challenge – CM Spelman vs. CM Riley to reduce offices' overall footprint

- Watershed Protection Fuel Competition – Reduction in MPGs for fleet vehicles

- Walk Bike and Roll – An alternative commute program rewarding employees for avoided trips

Currently developing guidelines for interdepartmental challenges using GHG inventory data

CITY OF AUSTIN **OFFICE** of Sustainability

Thank You

Mary K. Priddy

Program Coordinator

Austin Climate Protection Program

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of Sustainability

Thanks to our audience and our participants:

Moderators:
Mitch Brown, mitchbrown@icfi.com – ICF International, DOE TAP
Jen Clymer, jclymer@icfi.com – ICF International, DOE TAP

Guest Presenters:
Amy Wolfe, wolfeak@ornl.gov – Oak Ridge National Laboratory
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Mary Priddy, Mary.Priddy@austinenergy.com – City of Austin

Appendix of Behavior Change Program Examples

Leading By Example

- Hawaii – Energy Conservation through Behavior Change (http://www.noresco.com/hi/epa.html)

  – Call to action to all employees to help the state capitol win EPA's National Building Competition (and conserve in all state buildings)

  – Funding Behavior Change Programs through Comprehensive Performance Contract

- Arlington County, VA - Building Energy Report Cards (http://www.arlingtonva.us/portals/topics/aire/BuildingEnergy.aspx)

  – Employee volunteers promote energy-efficient behavior and monitor energy and emissions performance for their buildings/departments

  – Aligned with County's Community Energy Plan

- Miami-Dade County, FL – Sustainability Performance Evaluations

  – Increases visibility of senior management's energy efficiency and sustainability efforts and inspires employees to contribute
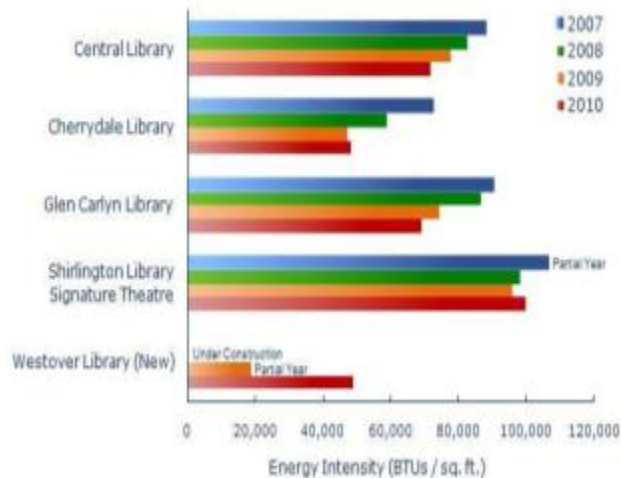
Building Energy Report Cards
(http://www.arlingtonva.us/portals/topics/aire/BuildingEnergy.aspx)

Employee Green Pledge

In Miami-Dade County, we are lucky to be surrounded with beautiful and valuable natural resources. Because this is our home, we should do what we can to protect it. Your simple actions in the workplace can make a huge difference and have a significant impact on our environment.

The Miami-Dade County Employee Green Pledge is our collective effort to adopt easy-to-achieve sustainable behaviors in the workplace into a model the community can incorporate into everyday life. Below are some very simple things you can do to conserve energy and water and even reduce the amount of trash you produce at work. We challenge you to commit by checking off as many boxes as possible. Learn how you will make a difference by committing to these simple actions.

CONSERVING ELECTRICITY: All of us use electricity every day at work for lighting, cooling, using computers, printers, etc. The County consumes a lot of electricity - it is the largest FPL account in the State of Florida! Reducing the amount of electricity we use will not only reduce pollutants but also save the County money.

🍃 I commit to saving electricity at work by:

☑ Placing my computer and office fax machines, copiers, monitors and printers on energy-saving mode (standby) when idle for 15 minutes or more

☑ Disconnecting or turning off personal and shared office equipment when leaving for the day

☑ Ensuring lights are turned off in your office and common areas like lunch rooms, training rooms, conference rooms and storage rooms when they are not in use

☐ Not applicable to my job

Training Program Examples

- Austin, TX – Climate Protection training program (http://www.cityofaustin.org/acpp/)

  - Uses a "train the trainer" model to educate all 13,000 city employees on resource conservation and climate science

- Pinellas County, FL – GreenStar Office training program (http://pinellas.ifas.ufl.edu/sustainability/greenStar/index.shtml)

  - County-led initiative to train government and private sector office workers on how to reduce their environmental impact

Green Team Examples

- Arlington County, VA – AIRE Captains
  (http://freshaireva.us/2011/07/county-operations/)

- Austin, TX – Climate Action Team
  (http://www.cityofaustin.org/acpp/department_plans.htm)
  - Interdepartmental team meets monthly to share best practices and lessons learned implementing their departmental climate protection plans

- California Governor's Green Action Team
  (http://www.green.ca.gov/GreenActionTeam/default.htm)
  - Interdepartmental team responsible for implementing government and commercial building energy efficiency policies

Competition/Incentives Examples

- Pierce County, WA – ENERGY STAR Challenge (http://www.co.pierce.wa.us/pc/abtus/ourorg/facmgmt/sustainability/energyefficiency.htm)

  – Uses the national ENERGY STAR challenge to motivate employees to see which building can save the most energy

- Polk County, FL – Fuel Conservation Incentive Program (http://www.government-fleet.com/Article/Print/Story/2011/01/Incentivizing-Drivers-to-Conserve-Fuel.aspx)

  – Encourages employees to practice fuel-efficient driving by sharing 50/50 any fuel cost savings for employees who improve their mpg rating by ≥5% over a year period

County Building ENERGY STAR Performance Score Poster
(http://www.co.pierce.wa.us/pc/abtus/ourorg/facmgmt/sustainability/sen.htm)

Sustainability Education Network
(http://www.co.pierce.wa.us/pc/abtus/ourorg/facmgmt/sustainability/sen.htm)

Power to Change Light Switch Cover
(http://www.atlantaga.gov/mayor/sustainability_p2c_031209.aspx)
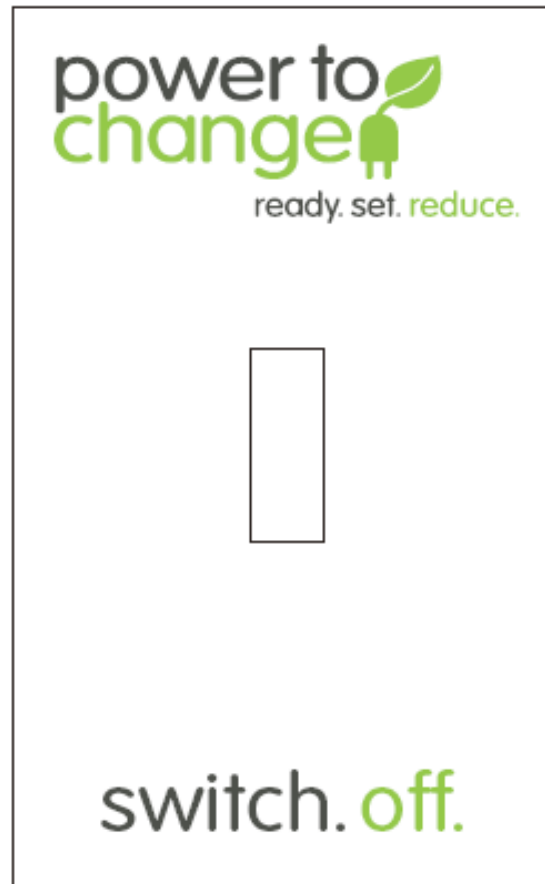
Policy Examples

- City of Medford MA - Energy Efficiency Policy Plan http://www.medford.org/Pages/MedfordMA_Energy/Energy_Efficiency_Policy.pdf - Example of comprehensive energy efficiency policy for small city

- Fort Collins CO - Sustainable Action Plan http://www.fcgov.com/sustainability/pdf/sustainability-plan.pdf - Recommendations on policy, goals, and targets for advancing sustainability within City operations

- Ulster County NY - Energy Policy & Implementation Guidebook http://www.co.ulster.ny.us/downloads/UC%20Energy%20Policy.pdf – Structured approach for meeting measurable energy reduction goals

Additional Resources

- City of Atlanta, Power to Change Toolkit (http://www.atlantaga.gov/mayor/sustainability_p2c_031209.aspx)

- Environmental Leader, "Employee Engagement and Climate Change" article (http://www.environmentalleader.com/2010/09/21/employee-engagement-and-climate-change/)

- Environmental Protection Agency, Bring Your Green to Work with ENERGY STAR® (http://www.energystar.gov/index.cfm?fuseaction=bygtw.showSplash)

- Federal Energy Management Program, Create Your Own Energy Awareness Campaign (http://www1.eere.energy.gov/femp/services/m/create_campaign.html)

- The Climate Group, "Employee Engagement in Climate Change" paper (http://www.annemiller.info/docs/EmployeeEngagement.pdf)