



- August 15-18, 2010 • Dallas, Texas •
- Dallas Convention Center •



Moving toward sustainability: Engaging people who are otherwise engaged

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# Key challenge: Becoming a meaningful signal through the noise

- Overview of ORNL's Sustainable Campus Initiative
  - Employee, Family, and Community Engagement
- Our portfolio of communication and engagement methods
- Signal-through-noise issues
- Questions, issues, and suggestions for effective communication and engagement



# Ambitious effort launched in 2008 with 10-year horizon

- Energy efficiency + technologies + operations + business processes + behavior
- Continues campus modernization (2002)
- Preceded EO 13514
  - *Federal Leadership in Environmental, Energy, & Economic Performance*
- Began as a voluntary effort
  - Now campus-wide, extensive, funded
- Now an umbrella for many sustainability-related activities
  - Initiative-driven or not
- Builds on ORNL's science and technology R&D
  - Combines R&D *with* facilities and operations

**Transformational  
Technologies**  
(Melissa Lapsa &  
Randy Overbey)

## TRANSFORMATIONAL TECHNOLOGY

**Sharing Successes**  
(Julia Kelley)

**Solar Assisted  
Charging  
(EV) Plug-In Vehicles**  
(Curt Maxey)

**Sustainability  
Employee  
Transportation**  
(Diane Davidson)

**Energy  
Storage  
Peak Power  
Management**  
(Michael Starke)

**Grid Efficiency  
Smart Grid**  
(Isabelle Snyder)

**Wireless  
Energy Data**  
(Bob Baugh)

**Information  
Technology  
Sustainability**  
(Sheila Causby)

## LEADING EDGE TECHNOLOGY

**Procurement**  
(Jerome  
Hicks)

**Land Use/  
Landscaping**  
(Pat Parr)

**Renewable  
Energy  
Sources**  
(Curt Maxey)

**Zero-  
Energy  
Buildings**  
(Norm  
Durfee)

**Sustainability  
ORNL  
Vehicle  
Fleet**  
(Shean Huff)

**Sustainability  
In New  
Construction**  
(Warren  
Thomas)

**Renovation  
EB**  
(Ann Bryant)

## KNOWN TECHNOLOGY

**Energy Efficiency  
in Existing  
Facilities**  
(Greg Palko)

**Water  
Reductions**  
(Dan  
O'Connor)

**Recycle and  
Reuse**  
(Susan  
Michaud)

**Employee  
Wellness**  
(Joan  
Lawson)

**Employee  
Family  
Community  
Engagement**  
(Amy Wolfe)

**Greenhouse  
Gas Inventory**  
(Teresa Baer)

**Annual  
Sustainability  
Report**  
(Melissa Lapsa &  
Randy Overbey)

## FOUNDATIONAL METHODS

# ORNL is DOE's largest science and energy laboratory



- \$1.4B annual budget
- 4,600 employees
- 3,000 guest researchers annually
- 17,000 short-term visitors annually
- Nation's most diverse energy portfolio
- World's most powerful open scientific computing facility
- Operating the world's most intense pulsed neutron source
- 4.25 million ft<sup>2</sup> of facilities, on 4400 acres
- 34,000-acre reservation
- Extensive utilities—centralized and distributed systems
- \$350 million invested in modernization



# ORNL's campus has experienced tremendous growth

## Many new facilities

- 1 million ft<sup>2</sup> LEED-certified buildings
- A first for DOE and Tennessee



## But, old buildings and infrastructure remain

- \$89M Energy Savings Performance Contract

### ESPC measures:

1. biomass steam production
2. steam system decentralization of remote buildings
3. building management systems
4. advanced electric metering & **energy awareness training**
5. mechanical equipment
6. energy-efficient lighting
7. domestic water conservation
8. elimination of once-through cooling for air compressor

# ORNL's campus has experienced tremendous growth



ORNL East Campus Today



# Employee, Family, and Community Engagement goals have centered on awareness

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- Primary FY 2010 goal—to “touch” every employee so they know about the Sustainable Campus Initiative
- Engagement goals revised annually
  - Extent to which FY 2011 goals will align with EO



# Our plan sorts activities broadly—by target audience, mechanism, and goal

- Broadcast activities

- 1-way

- To make Sustainable Campus Initiative widely known within the “ORNL community”

- Interactive

- To generate, catalyze interest in Initiative within the “ORNL community,” open to all

- Targeted activities

- 1-way and interactive, tailored to particular groups’ needs and interests

- To publicize the Initiative and generate interest in it



# Our plan includes a portfolio of Engagement activities

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- Broadcast (mainly)
  - Web site
    - With Q&A, discussion blog, ideas blog
  - Sustainability e-newsletter (monthly)
    - With personal stories
  - Sustainability at Home seminar series
  - Discussion series (ORNL-centered)
  - ORNL Today (multiple messages/week)
  - Director's messages
  - Flat-panel displays; posters
  - Sustainability in the Community Award
  - Branding and give-aways
- Targeted
  - Meet, speak with groups



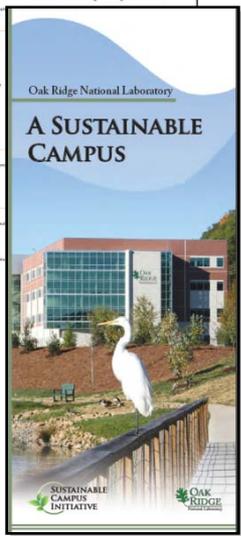
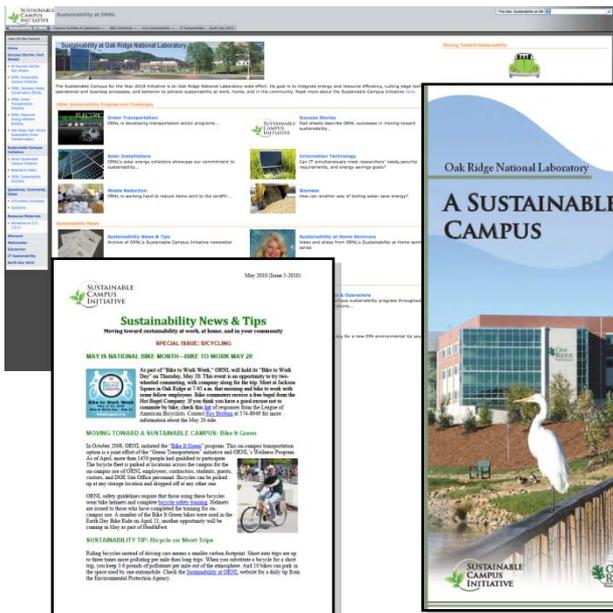
Awards, contests



Seminars, forums



Give-aways, branding



Diverse, active portfolio of communication & engagement activities

Posters, signs, displays



Events



Electronic and print media



GovEnergy 2010

- View All Site Content
- Home
- Success Stories: Fact Sheets
- All Success Stories: Fact Sheets
- ORNL Sustainable Campus Initiative
- ORNL Domestic Water Conservation Efforts
- ORNL Green Transportation Initiative
- ORNL Maximum Energy-Efficient Building
- Oak Ridge High School Sustainable Green Transformation
- Sustainable Campus Initiative
  - About Sustainable Campus Initiative
  - Regulatory Basis
  - ORNL Sustainability Contacts
- Questions, Comments, Ideas
  - Information Exchange
  - Questions
- Resource Materials
  - Workshop on E.O. 13514
- Winners!
- Webmaster
- Disclaimer
- IT Sustainability
- Earth Day 2010



The Sustainable Campus for the Year 2018 Initiative is an Oak Ridge National Laboratory-wide effort. Its goal is to integrate energy and resource efficiency, cutting-edge technologies, operational and business processes, and behavior to achieve sustainability at work, home, and in the community. Read more about the Sustainable Campus Initiative [here](#).

**ORNL Sustainability Progress and Challenges**



**Green Transportation**

ORNL is developing transportation action programs...



**Success Stories**

Fact sheets describe ORNL successes in moving toward sustainability...



**Solar Installations**

ORNL's solar energy collectors showcase our commitment to sustainability...



**Information Technology**

Can IT simultaneously meet researchers' needs, security requirements, and energy savings goals?



**Waste Reduction**

ORNL is working hard to reduce items sent to the landfill...



**Biomass**

How can another way of boiling water save energy?

**Sustainability News**



**Sustainability News & Tips**

Archive of ORNL's Sustainable Campus Initiative newsletter



**Sustainability at Home Seminars**

Video and slides from ORNL's *Sustainability at Home* seminar series

**Sustainability at Work and Home**



**R&D Initiatives**

ORNL is leading the way in sustainability research and development in several key areas...



**Campus Facilities & Operations**

Information on campus sustainability progress throughout ORNL's facilities and operations...



**Your Sustainability**

Information to help you obtain sustainability at work, at home, and in your community...



**Environmental Tip of the Day**

Don't idle! Remind your school system to turn off bus engines when buses are parked to eliminate harmful exhaust pollution.

**Education**

Check here each day for a new EPA environmental tip you can use.

**Moving Toward Sustainability**



**First Clean Commute Day, Friday, August 20**

Smart Trips is encouraging 10,000 people in the greater Knoxville area to take an alternative to driving alone--carpooling, bicycling, walking, taking the bus, or working from home--Friday, August 20, 2010. It's only one day, but with enough participation, 100 TONS of pollution can be kept out of the air. All participants are eligible for prizes. Read more in the [newspaper](#) and local [blog](#).

**Did you miss Susan Michaud's Sustainability at Home Seminar?**

If you want to learn "How Do I Get Rid of *This?*" but missed Susan Michaud's seminar, sponsored by the Sustainable Campus Initiative, the [slides](#) have been posted. Watch for the video soon.

**July Issue of Sustainability News & Tips Posted**

**Announcements & Events**

- State tests new switchgrass varieties
- Chu Announces Steps to Implement Cool Roofs at DOE and across the Federal Government
- Near-Term Emissions Choices Could Lock in Climate Changes for Centuries to Millennium
- Obama says electric car battery prices to tumble
- UT Office of Sustainability seeks to further compost initiative
- G.M. to Offer 8-Year Guarantee for New Electric Car's Battery
- TVA reveals more changes to Generation Partners program
- DOE Makes Public Detailed Information on the BP Oil Spill
- Follow response to Deepwater Horizon oil spill online

If our metric of success is **awareness**  
about Sustainable Campus Initiative...

# We need to convey a signal that is detectable through the “noise”

- Information, message overload
- Other work obligations, requirements predominate
- Competing, conflicting messages and objectives
- Workplace (vs. home) perspective—what’s the direct benefit?



**ORNL Today**

Home | People | Menu | Weather | Notices | Site Index | Comments

Search ORNL Today | Back Issues

Weather

Today's High 98°F  
Today's Low 73°F  
Precipitation 16% chance  
Forecast Slight Chance Thunderstorms

**Cafeteria Menu**

- Monday Chicken Piccata/Pizza /Chicken Gumbo
- Tuesday Stir Fry/Seafood Stuffed Tilapia/Veg. Soup
- Wednesday Taco Salad/Blue Plate Special: Chicken & Sausage Jambalaya/Pizza/Chicken Tortilla Soup
- Thursday Stir Fry/Lasagna w/Garlic Bread/Veg. Soup
- Friday Catfish/Steamed Tilapia over Rice/Pizza/Clam Chowder

**ORNL Classifieds**

Submit your ads on-line at [classifieds.ornl.gov](http://classifieds.ornl.gov).

**OT Videos**

See scenes and events around the Lab through ORNL Today's video clips.

**Newsroom**

- News Releases
- ORNL in the News
- DOE Media Report
- Media Mentions

**Announcements and Events**

**Today**

- Simulations of Coupled Heat Transport, Oxygen Diffusion and Thermal Expansion in UO<sub>2</sub> Nuclear Fuel Rods (08/04/2010 10:00 AM Computational Sciences Building (3600), Room 3-302)
- Understanding Irregularly Sampled Time Series (08/04/2010 03:00 PM National Transportation Research Center, Room C-04)

**Tomorrow**

- The application of Monte Carlo methods for studying lattice defects and microstructural evolution in irradiated materials (08/05/2010 10:30 AM High Temperature Materials Laboratory (Building 4515), Room 265)

**Coming Attractions**

**Today's News**

Items submitted by noon Thursday will appear the entire following week. E-mail: [ornitoday@ornl.gov](mailto:ornitoday@ornl.gov).

- United Way campaign
  - One world, many cultures: International Festival Thursday - Updated!
- Exotic insect threatens region's ash trees
- Celebrating summer students at picnic on quad
- Miller named UT-Battelle Corporate Fellow
- ORNL people: Honors and awards
  - Peng to receive Fusion Power Associates award
  - Buchanan elected 2010 ACS Fellow
  - Paranthaman co-edits a book, High Temperature Superconductors
- Thundat honored by ASME, Electrochemical Society
- Flying Solo! for single working parents Friday, Aug. 6
- Cafeteria renovations cause temporary changes
- Siren test Wednesday
- New TSA travel requirements require identifying information
- Conference travel approval for November conferences
- Weinberg Auditorium to close for remodeling
- Updated chart of the nuclides free at the library
- User Week highlights solar energy, storage, Sept. 13-17
- Hwy 93 traffic slowed for White Oak Dam work
- Some tips to ease commuting congestion
- Measurement seminar series: Non-contacting temperature measurements
- Credit Union services available onsite
- Calls for proposals
  - Neutron scattering science call for proposals
- MSTD hosts Materials Data Management Consortium
- Construction zone: Detours and road work
- Construction-related projects around campus
- Old cafeteria slab parking now closed
- Drilling to begin around 2013 Slab area
- Your Benefits
  - Medical coverage extension to young adults
- The ORNL Wellness Program
  - August Health Series: Prostate Cancer and PSA; back pain variations
  - Dotice Crisis, EAP counselor, offers "Mid-Day Calm" stress reduction sessions
  - Participation in Reward Points jumps in June
  - Workplace Boot Camp every Thursday
  - Embody health: Diabetes control through healthy eating
- Sustainable Campus Initiative
  - Environmental tip of the day
  - Sustainability News and Tips now available

**Other links of interest**

- New Safety Flash: Heat stress
- Latest S&T Highlights issue available on line
- Slate blogs the elements
- ORNL's Public Environmental Survey is now available
- This week in 58MS
  - Management System documents in review
- ORNL ISO 9001 Bulletin
- Planning
- Lost and found
- ORNL in the Community
  - 2010 Kamen Knoxville Race for the Cure registration now open
- Meeting Notices
  - August 24 Woman-Owned Small Business Day conference
- Community calendar of events
  - Where were you on V-J Day?
  - Free informal tennis on Fridays
  - AMSE calendar of events for August
- Club ORNL news
  - Club ORNL offers Lifestyle Books
  - Discount on season passes for the 2010-2011 KSO Pops Series
  - Club ORNL/UT offer discounts on football tickets
  - Knoxville Symphony/Clarence Brown production of Amadeus Sept. 9
  - Tickets available for annual KSO/Clayton Christmas Concert
  - Chattanooga day trip Sept. 11 - New!
- Job postings
- Training and education courses available
- QSSD sorts the resources
  - "Exploring Crucial Conversations" offered August 10
  - RHP certification training August 18-19
  - "Mastering Workflow: Getting Things Done" offered August 23
  - Onsite Office 2007 training classes offered
  - Library offers training for OSTI products
- Other links of interest

If our metric of success is behavior change inspired by Sustainable Campus Initiative...

If our metric of success is energy savings, greenhouse gas reductions, or waste minimization inspired by Sustainable Campus Initiative...

# We need to identify and target high-priority behaviors to change

- Not our main priority to date
- Who is our target population?
  - Individuals, groups, roles in organization?
  - Especially with diversity of facilities and staff activities
- What criteria inform priorities?
  - Numbers of people vs. effect on energy use, GHG emissions, waste reduction?



# Engagement activities should align with goals

- Awareness ≠ behavior change ≠ energy savings, GHG reduction, or waste minimization
- Each may be a step toward achieving specified goals

# Engaging people who otherwise are engaged starts with goals

- Awareness
  - Broadcast mechanisms, branding, high-visibility events, etc.
- Behavior change
  - Whose behavior, and to achieve what end(s)?
- Energy savings, GHG reduction, or waste minimization
  - What role does behavior play? (Alternatives?)
  - What strategy?
    - Many vs. targeted; convenient vs. conscious action; etc.

# So, how to engage those who are otherwise engaged?

- No precise recipe for success
- Portfolio approach
  - Diverse array of “investments,” designed to
    - Achieve multiple objectives
    - Hedge bets; spread risk
    - Leverage
  - Alignment with goals is critical
- Temporal dimensions
  - Initial “success” does not assure persistent change

Thank you.

Questions and comments?