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### ***EETD News #36 – Summer 2011, Vol. 10, No. 1***

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#### **Research Highlights:**

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- Cooling the Roof of Berkeley Lab's Advanced Light Source
- Study of Port of Oakland Truck Emissions Reported at Hearing
- EETD Receives DOE Award to Evaluate Fuel Cell Technology
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### ***EETD News #35 – Spring 2011, Vol. 9, No. 4***

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- UV Waterworks Wins Ashok Gadgil a European Inventor Award
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### ***EETD News #34 – Winter 2011, Vol. 9, No. 3***

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OpenADR Alliance Begins to Advance OpenADR as Smart Grid Standard  
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#### **Research Highlights:**

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- EETD Scientists Recognized by the American Council for an Energy-Efficient Economy
- Ashok Gadgil's Students Help Design Sustainable House
- Energy Efficiency Retrofits for Healthier Interiors
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### ***EETD News #33 – Fall 2010, Vol. 9, No. 2***

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Bennett-Nordman IEEE Standard  
Nicotine and Ozone  
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Renewables Portfolio Standard Report  
Kerosene Lamp Particulate Study

#### **Research Highlights:**

- Berkeley Lab to Lead U.S.-China Clean Energy Research Center
- Wind Energy Paper Receives ARES Award
- Berkeley Lab Researcher Receives GridWeek Leadership Award
- DOE Proposes Higher Efficiency Standards for Refrigerators
- EETD Researchers Contribute to UC San Diego's Efficient DC-Power Data Center

### ***EETD News #32 – Summer 2010, Vol. 9, No. 1***

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Arsenic Removal Technologies  
ARPA-E Funding  
Low-Energy Buildings User Facility  
ECMA International Standard  
U.S. Wind Power Market  
Clean Energy Ministerial

#### **Research Highlights:**

- Battery R&D Directions Discussed
- Piette Elected to Smart Grid Architecture Committee
- EETD Researchers and Microsoft Corp. Win R&D 100 for Home Energy Saver/Hohm
- Berkeley Lab Contributes to DC-Powered Data Center Tests

### ***EETD News #31 – Spring 2010, Vol. 8, No. 4***

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Dangers of Third-Hand Smoke  
Energy Efficiency Workforce Training  
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### ***EETD News #30 – Winter 2010, Vol. 8, No. 3***

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Community Wind  
FABS21 Release  
Franchise Tax Board Data Center Project

### ***EETD News #29 – Fall 2009, Vol. 8, No. 2***

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Green Chemistry: Lasers Detect Explosives and Hazardous Waste  
Photocatalytic Oxidation (PCO) Air Cleaners: Reducing Energy Use While Clearing the Air  
Energy Reduction for Energy Research  
New Study Sheds Light on the Growing U.S. Wind Power Market  
Recovery Act Funding Enables Berkeley Lab to Help Federal Agencies Improve Energy Efficiency

#### **Research Highlights:**

- Majumdar Confirmed as First Head of DOE's ARPA-E
- Building a Net-Zero Home: The \$20 Million Energy Challenge
- China Energy Group Helps Chinese Cement Companies Reduce GHG Emissions

### ***EETD News #28 – Summer 2009, Vol. 8, No. 1***

Cool the Neighborhood, Cool the Planet  
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Berkeley Lab Analysis Finds Reduced HVAC May Improve Health Sustainability and the U.S. Energy System

#### **Research Highlights:**

- Lab Role in Project Vulcan Greenhouse Gas Emissions Map
- EETD's Levine Receives Japanese Architecture Prize
- Renewable Energy Team Wins Wind Power Award

### ***EETD News #27 – Fall 2007, Vol. 7, No. 4***

Batteries of the Future I: Modeling Lithium-Ion Battery Behavior  
Batteries of the Future II: Building Better Batteries Through Advanced Diagnostics  
The BATT FabLab: Road to a Better Battery  
Making Lithium-Ion Batteries Safer  
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#### **Research Highlights:**

- Popular Mechanics Honors Gadgil, Galitsky for Darfur Stove
- Presidential Leadership Award
- Two Prestigious Awards for Professor John Newman
- Home Energy Saver Website Gets Its Four Millionth Visit
- San Francisco Federal Building is One of the "Best Inventions of the Year"

## ***EETD News #26 – Summer 2007, Vol. 7, No. 3***

CALGEM: Taking the Measure of California's Greenhouse Gas Emissions  
Studies Confirm Large Public Health and Economic Impact of Dampness and Mold  
Behind Closed Doors: Beware the Air  
Berkeley Lab's Ultraclean Combustion Technology for Electricity Generation  
Fires Up in Hydrogen Tests  
'Greening the Capitol' Gets Technical Assistance From Berkeley Lab

### **Research Highlights:**

- Low-swirl Injector Wins R&D 100 Award
- A Flex Your Power Award for Cool Roofs
- ...And Honorable Mention for Data Centers
- McKone Appointed to Biomonitoring Panel
- Report on Energy Service Companies Available
- U.S. Wind Power Report

## ***EETD News #25 – Winter-Spring 2007, Vol. 7, No. 2***

Energy Efficient Electrochromic Windows on the Threshold  
What Can Models Tell Us About Risk?  
An Inexpensive Wireless Lighting Control System to Improve Energy Efficiency

### **Technology Transfer:**

- Dry Polymer Electrolytes with High Conductivity for Secondary Lithium Metal Batteries
- Air-stable Nanomaterials for Efficient OLEDs and Solar Cells

Monitoring of Western Electricity Markets

### **Research Highlights:**

- A Visit to the California Governor's Inaugural
- Honors for Alan Meier

## ***EETD News #24 – Fall 2006, Vol. 7, No. 1***

Energy Efficient Direct-Current Powering Technology  
Laser Ultrasonic Sensor Wins R&D 100  
Silver Anomalies in Jerusalem Pottery  
GSA's Cool Coup at the Philadelphia Custom House

### **Technology Transfer:**

- Chang's New Technique to Clean Up Fossil Fuel Emissions

Darfur Stoves Effort in Progress

### **Research Highlights:**

- EETD's New Website
- Fan Filter Unit Test Method
- Berkeley Lab Fume Hood is Licensed for Manufacture

## ***EETD News #23 – Summer 2006, Vol. 6, No. 4***

A Mission to Darfur  
Lighting it Right with Smart Dust  
Balancing California's Energy  
Cost to Reduce Carbon Emissions in Developing World Higher Than in Industrial Nations  
Gold Rush Still Haunts San Francisco Bay  
Rosenfeld Wins Fermi Award  
A Visit to China

### **Research Highlights:**

- Contamination Control Technology
- Traffic Physics
- Benner Award Goes to Mary Ann Piette
- EETD, Jordanians Sign Energy MOU

**Spring 2006 issue not published**  
**Winter 2005 issue not published**

***EETD News #22 – Fall 2005, Vol. 6, No. 3***

Large Power Savings Found in Automated Demand Response Tests  
Climate Change and the Insurance Industry  
EETD Evaluates China's Energy-Strategy Options  
Groundbreaking Computer Simulation Work Published  
Harnessing Wind Energy in Eritrea

**Technology Transfer:**

- Berkeley Lab Miniaturized Sensor

Berkeley and Sandia Labs Airport Protection Guidelines

**Research Highlights:**

- Modeling POPs and Climate
- New York Times

***EETD News #21 – Summer 2005, Vol. 6, No. 2***

Electricity Prices and the Tariff Analysis Project (TAP)  
Reducing Developing World's Polluting Fuel-Based Lighting  
United Nations World Environment Day June 1-5, 2005  
First Energy-Efficient, LED-Based Task Lamp Brought to Market  
BEST Winery Tool Helps Reduce Energy and Water Costs  
Energy-Saving Paper Sensor Passes Major Milestone

**Technology Transfer:**

- High-Conductivity Single-Ion Cross-Linked Polymers for Lithium Batteries and Fuel Cells

**Research Highlights:**

- Lone Pine Visitors Center Wins Energy-Efficiency Award
- Behind the Pritzker Prize

(Final issue to be printed – includes response card for E-Notification requests)

***EETD News #20 – Winter/Spring 2005, Vol. 6, No. 1***

For Millions of Bangladeshis, Ash May Offer Hope  
A Next-Generation Community College Curriculum for Energy-Efficient High-Performance Building Operations  
ProForm: Assessing Energy and Environmental Impacts  
Improved Control Algorithm Appears in a Next-Generation Daylighting Product

**Technology Transfer:**

- Gas-Filled Panels

**Research Highlights:**

- Better Power Interfaces for Computers and Consumer Electronics
- Fuzzy Logic and Public Health
- The Insurance Industry and Climate Change
- An EETD Blog: [bleer.lbl.gov](http://bleer.lbl.gov)

## ***EETD News #19 – Fall 2004, Vol. 5, No. 4***

Cool Colors Project: Improved Materials for Cooler Roofs

BVAMP: Simplifying Assessment of Building Vulnerability

NARAC Expands its Reach: Minimize Chemical-Biological Weapons Casualties

How to Buy Green Power

New Federal Efficiency Standards for Residential Furnaces and Boilers: EETD Researchers Estimate Potential Impacts

### **Research Highlights:**

- EETD Scientists Tackle Afghani Housing
- Wray Honored with Distinguished Service Award
- Gadgil Wins Tech Museum Award

(SURVEY – Please take a brief *EETD News* Reader Survey)

## ***EETD News #18 – Summer 2004, Vol. 5, No. 3***

Dampness and Mold Growth in Buildings: A National Academy Study

EETD to Operate Demand Response Research Center for California Energy Commission

Transition-Metal Switchable Mirrors Win a 2004 R&D100 Award

TRAMS: A New Tracer Gas Airflow Measurement System

Better Measurements of Carbon Aerosol Help Study Climate Effects

## ***EETD News #17 – Spring 2004, Vol. 5, No. 2***

An Update on the EETD Research Program on Batteries for Advanced Transportation Technologies

Improved Algorithms Lead to Lab-Scale Combustion Simulations

To Get to Mars, Use Wheat

Carbonaceous Aerosols and Climate Change: How Researchers Proved Black Carbon is a Significant Force in the Atmosphere

### **Research Highlights:**

- Agenda 21 Energy-Efficient Office Building Now Open
- Scientist Recognized for Advancing Wind Energy Markets
- EETD Scientist Receives Fellowship
- EETD Scientist Published Important Dosimetry Treatise
- Recognition for Efforts to Protect Buildings From Chemical and Biological Weapon Attacks

## ***EETD News #16 – Winter 2004, Vol. 5, No. 1***

Multi-Building Internet Demand-Response Control System

ASHRAE Residential Ventilation Standard Approved

The *New York Times* and EETD Advance Energy-Efficient Building Design

States and Cities Follow Federal Lead in Energy-Efficient Purchasing

### **Research Highlights:**

- Ed Vine Honored with Lifetime Achievement Award
- McKone Receives Mehlman Award
- William Golove receives Presidential Award

### ***EETD News #15 – Fall 2003, Vol. 4, No. 4***

Energy Efficiency and Indoor Environmental Quality in Relocatable Classrooms  
CLASP International Success  
A Tool to Predict Exposure to Hazardous Air Pollutants  
Testing New Battery Materials in Standard Cells  
Buildings Technologies Information Gaps Filled by New Sources

#### **Research Highlights:**

- Ventilation Standard for Residences Approved
- Mayoral Summit
- Environmental Energy Technologies Division is 30 Years Old

### ***EETD News #14 – Summer 2003, Vol. 4, No. 3***

Understanding the Indoor Concentrations of Outdoor Aerosols in Residences  
EETD Develops New Commercial Duct-Sealing Technology  
Ultraclean Low-swirl Combustion Will Help Clear the Air  
Functional Testing Guide Aids Building Teams  
Motor System Optimization in China: Building a Model for Industrial Energy Efficiency  
Capturing and Tracking Energy-Savings Project Goals with the Design Intent Tool  
Microgrids: Reliable Power in Small Package

#### **Research Highlights:**

- Environmental Energy Technologies Division Wins “R&D 100” Awards for EnergyPlus Software
- 2003 World Technology Award for Energy Goes to Environmental Energy Technologies Division

### ***EETD News #13 – Spring 2003, Vol. 4, No. 2***

Saving Energy Through Improved User Interfaces  
Berkeley Lab Helps the City of Oakland Meet Energy Costs  
Thermal Distribution Systems in Large Commercial Buildings  
Cal-Arch: A California Building Energy Tool for Owners and Operators  
Measuring Emissions From Heavy Oil Storage Tanks  
New DOE Building Energy Survey

### ***EETD News #12 – Winter 2003, Vol. 4, No. 1***

EnergyPlus Saves Federal Building \$9 Million in Energy Costs  
D.C. Office Tackles FEMP Initiatives on Government Energy-Efficient Procurement  
Energy-Related IEQ Research: Setting Priorities  
Towards Understanding Atomic and Electronic Structure of Battery Materials  
Climate Change May Increase U.S. Crop Damage From Higher Precipitation  
Data Center Energy Use: Truth versus Myth

#### **Research Highlights:**

- Energy Champion
- EETD Scientist Garner Awards
- New Design Tool Analyzes Cost of Operating a Building over its Lifetime
- New Version of ProForm Released
- Quality, Not More Weight, May Make Vehicles Safer

**Fall 2002 issue not published**

## ***EETD News #11 – Summer 2002, Vol. 3, No. 4***

California Consumers Kept the Lights On

Quick and Easy Web-Based Assessment Tool for Day/Electric Lighting

Berkeley Lab Model Tracks Indoor Anthrax Dispersal

Rating “Green” Laboratories – Labs21 Environmental Performance Criteria

### **Research Highlights:**

- Congressional Clean Energy Expo
- Berkeley Lab Licenses Low-Emission Natural Gas Burner to Maxon Corp.
- EETD Staff Part of Award-Winning Team
- EPOB Head Made Member of Academy
- Published Work Lauded
- Indoor Air 2002 Attracts Widespread Participation
- Berkeley Lab Scientist Honored with World Technology Network Award

## ***EETD News #10 – Spring 2002, Vol. 3, No. 3***

Containing the Effects of Chemical and Biological Agents in Buildings

Laser Ultrasonic Sensor Streamlines Papermaking Process

Building a Smarter Light: The IBECs Network/Ballast Interface

IPMVP – From a DOE-Funded Initiative to a Not-for-Profit Organization

Skylight Well Reduces Solar Heat Gain

### **Research Highlights:**

- Plan to Reduce Standby Power Loss Gets Energy Globe Award
- Nobelist Uses Berkeley Lamp
- Energy Choices Made More Difficult
- EETD Scientist Honored for Volunteer Work
- AirLiner® a Winner
- Award-Winning EnergyPlus
- California Energy Commission Funds Data Centers Study

## ***EETD News #9 – Fall-Winter 2001-2002, Vol. 3, Nos. 1-2***

BETR North America: A Multimedia Contaminant Fate Model

High-Performance Rechargeable Batteries for Electric Vehicles

Climate Change and Wildfire Severity in California

Cleanroom Energy Benchmarking

BDA: Integrated Decision Support for the Building Life Cycle

New Residential Clothes Washer Energy-Efficiency Standards

### **Research Highlights:**

- World’s Smallest Laser
- Indoor Air 2002
- EETD Hosts ACEEE Attendees
- Berkeley Lamp Saves Berkeley Money
- Berkeley Lab Scientist Profiled in Book on American Inventors

### ***EETD News #8 – Summer 2001, Vol. 2, No. 4***

The California Energy Crisis: A Brief Summary of Events  
The California Energy Crisis: Long- and Short-Term Solutions  
High-Performance Commercial Building Systems  
Supporting the Cool Roofs Standard  
Meteorology, Energy, and Air Quality  
High-Performance Fume Hood Reduces Energy Use 50%  
The New Berkeley Lamp Will Light the Way to Energy Savings  
Two Web Sites Help Californians Save Energy

#### **Research Highlights:**

- EETD, Philips Relamping Berkeley's Telegraph Avenue
- Max Sherman Made ASHRAE Director-at-Large
- Aeroseal Corporation Acquired
- EETD Displays New Technology at Lighting Event
- Gas-Filled Panels Win R&D 100 Award
- Summer Student Has Rewarding Experience

### ***EETD News #7 – Spring 2001, Vol. 2, No. 3***

New Commercial Building Energy Efficiency Program Launched  
Clean Energy Future Assesses Technology and Policy  
Managing the Health Impacts of Waste Incineration  
The Residential Ventilation Standard  
Improving Air Quality Modeling Results

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- EETD Researcher Teaches Readers to Use Numbers Effectively
- Helping Builders and Homeowners Make Intelligent Window Choices
- VisualSPARK 1.0 Now Available
- EETD Seminar Discusses Energy Crisis
- EETD Develops Energy-Efficient Table Lamp
- EnergySmart Schools Inventors Summit Takes Place at Berkeley Lab

### **Winter 2001 issue not published**

### ***EETD News #6 – Fall 2000, Vol. 2, No. 2***

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Polymers Take Charge  
Hotel Survey Illuminates Energy Savings

#### **Research Highlights:**

- Energy-Efficient Fume Hood to Begin Field-Testing Phase
- Unusual Approaches to Investigating Energy Efficiency
- Investigating Standby Energy Use of New Internet Technology
- Lab's Energy-Efficiency Research Benefits Shippers of Perishables

### **Spring 2000 issue not published**

## ***EETD News #5 – Spring 2000, Vol. 2, No. 1***

Electrochromic Window Tests in U.S. Office Show Promise  
CLASP Helps Developing Nations Implement Energy Standards  
EETD Scientists Aid Research Efforts Leading to MTBE Ban  
Power Outage Study Team Examines Electricity Reliability

### **Research Highlights:**

- Miscellaneous Electricity Usage Growing
- ProForm: New Software for Environmental Impact Assessment
- EETD Holds Measurement and Verification Training
- Search for Indoor Air Department Head

(*EETD News* Distribution Shifts to Web)

## ***EETD News #4 – Winter 2000, Vol. 1, No. 4***

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New Fluorescent Lamp Ballast Energy Efficiency Standards  
Leading by Example: In-House Energy Management at LBNL  
Berkeley Lab Acts to Implement Presidential “Greening” Order  
The Radon Project Web Site

### **Research Highlights:**

- Researchers Develop GHG-Mitigation Guidelines
- New Tool for Measuring Gas Concentrations
- LBNL Helps USPS Win Governor’s Award

## ***EETD News #3 – Fall 1999, Vol. 1, No. 3***

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Diagnostics for Building Commissioning and Operations  
Information Management for Performance Metrics  
EPIcenter: Montana State University’s Green Building Project  
Bild-IT—An Integrated Design Tool for the HVAC Industry  
Desktop Radiance

Building Design Advisor

Software Roundup:

- ADELIN
- COMIS
- DOE-2
- EnergyPlus
- GenOpt
- Home Energy Saver
- RESEM
- RESFEN
- SPARK
- SUPERLITE 2.0
- THERM
- WINDOW 4.1

Current Status of Software Interoperability and DOE Tools

## **EETD News #2 – Summer 1999, Vol. 1, No. 2**

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Low-Emissions Burner  
Avoiding Particle Deposition in Small Scale Electronics  
Thermal Management for Automobiles  
Energy-Efficiency Improvements for U.S. Steel Industry  
INEDIS: Global Network for Industrial Energy Analysis  
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Carbon Monoxide Occupational Sensor  
Materials End-Use Efficiency to Reduce Industrial Energy Demand

### **Research Highlights:**

- An Overview of Proposed ASHRAE Standards
- XRF Helps Archaeologists Determine the Origin of Ancient Pottery
- EETD Research Team Wins *Architecture* Research Award

## **EETD News #1 – Spring 1999, Vol. 1, No. 1**

Characterizing Diesel Particle Exhaust  
Miscellaneous Electricity Use  
COMIS: An Interzonal Air-Flow Model  
GenOpt: A Generic Optimization Program  
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### **Around the Division:**

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- Gasoline Additive Examined
- Spectrally Selective Low-E Detector Reassures Builders
- Energy Efficiency as an Insurance Loss-Prevention Strategy
- EETD Helps Put Some Air in California's Energy Standards

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