

# 2008 ACEEE Summer Study on Energy Efficiency in Buildings

Use the complete keyword shown. Do not select keywords with an asterick (\*) preceding them.

Use the keyword in parentheses, for example, use **energy audits**, not **\*audit (see energy audits)**.

acid rain	awareness	*building (see	community
active solar	campaign	existing or	outreach
adaptive	backup heating	new buildings)	community
advertising	balancing	calibration	programs
affordable housing	ballasts	carbon dioxide	community projects
air conditioners	barriers	(CO <sub>2</sub> )	compact packaging
air conditioning	baseboard heat	cars	comparison
air conditioning	baseline	ceiling fans	competition
peak	baseline survey	chillers	competitive
demand	basement	chlorofluorocarbons	services
air conditioning	behavior monitoring	(CFC)	comprehensive
system	belt drives	climate	conservation
sizing	bicomponent glass	climate change	compressors
air distribution	fiber	clothes dryers	computer monitors
air infiltration	bidding	clothes washers	computer simulation
air pollution	bill calibration	co-heat tests	computerized
*air quality (see	bill disaggregation	code compliance	control
indoor air	bill payment	code development	systems
quality)	behavior	code enforcement	computers
air sealing	billing analysis	coefficient-of-	condensation
air tightness	billing information	performance	condensers
algorithm	bin methods	(COP)	conduction
alternative cooling	binderless	cogeneration	conservation
appliance efficiency	insulation	collaborative	funding
standards	blower doors	planning	construction
appliance	boilers	comfort	industry
purchases	building	commercial	consumer
appliance	commissioning	buildings	awareness
saturation	*building codes	commercial codes	consumers
appliances	(see	and	consumption-based
architects	residential,	standards	billing
architecture	commercial,	commercial	consumer behavior
arrearages	or industrial codes	equipment	contractor survey
ASEAM	and	commercial	controls
ASHRAE	standards)	marketing	controls monitoring
ASHRAE design	building design	commercial	convection
conditions	building envelopes	program	cooking
ASO fans	building life-cycle	commissioning	cooking stoves
asset management	building model	commissioning	cool communities
attics	building	methodology	cool materials
attitudes	performance	commissioning	cool roofs
*audit (see energy	building permits	technology	cool storage
audits)	building prototypes	community energy	cooling
automation	building research	planning	cooling load

cooperative procurement	distribution planning	energy conservation	estimating savings evaluation
core programs	distribution utility	energy delivery	evaluation methods
cost	district heating and cooling	energy demand	evaluation planning
cost-benefit analysis	DOE-2	energy education	evaluation software
cost-effectiveness	doors	energy efficiency	evaporative cooling
crawlspace	double envelope	energy efficient mortgage	existing buildings
cultural factors	drive belts	energy end-uses	*expenditures (see energy expenditures)
customer/conservationist	dual fuel heating	energy	facilities management
interaction	duct leakage	expenditures	fan pressurization
custom projects	duct sealing	energy feedback	fans
customer behavior	ducts	energy information programs	federal buildings
customer choice	economic development	energy information services	federal procurement
customer education	ecosystem management	energy intensities	federal programs
customer information	*education (see energy education)	energy label	*feedback (see energy feedback)
customer pay programs	efficiency trends	energy management	fenestration
customer retention	efficient freemarkets	energy management systems (EMS)	field test
customer service	ELCAP (End-Use Load and Consumer Assessment Program)	energy policy	financial assistance
	elderly	energy savings	financial incentives
data base management	electric appliances	energy screening	financial institutions
data leveraging	electric equipment	energy service	financing
data quality	electric fans	energy service performance contracts	fireplaces
data visualization	electric heating	energy services companies (ESCOs)	flue dampers
daylight dimming systems	electric industry restructuring	ENERGY STAR® program	fluorescent lighting
daylighting	electric utilities	energy storage	forced air systems
decision making	electric utility deregulation	engineering calibration	forecasting
degree-day analysis	electric utility restructuring	engineering calibration approach	formaldehyde
dehumidification	electrical savings	engineers	fossil fuels
delivery efficiency	electricity	environmental awareness	free-riders
*demand (see energy demand)	electronic line voltage thermostat	environmental awareness	framework convention on climate change (FCCC)
demand pooling	electrotechnologies	environmental externalities	freezers
demand savings	employment end-use metering and monitoring	environmental impact	frequency distributions
demand-side bidding	end-use models	environmental policy	fuel oil
demand-side management (DSM)	end-use strategies	environmental sustainability	fuel substitution
demonstration project	*end-uses (see energy end-uses)	equipment	furnaces
deregulation	energy analysis	efficiency rating (EER)	gas appliances
desiccant cooling	energy audits	equipment loading	gas boilers
*design (see building design)	energy calculations	equity analysis	gas equipment
design criteria		error analysis	gas furnaces
design options		essay competition	*gas utilities (see natural gas utilities)
developed countries			geothermal (ground source)
developing countries			heat pumps
direct installation			glazing retrofit
dishwashers			global climate change
			global warming
			green pricing

greenhouse gas emissions	industry restructuring	management)	nitrous oxide (N <sub>2</sub> O)
greenhouse gas mitigation	information program	manufactured housing	occupancy
greenhouse gases	information transfer	market barriers	occupant behavior
health	innovative financing	market effects	occupant control
heat exchangers	input/output analysis	market penetration	office buildings
heat flow	institutional barriers	market poll	office equipment
heat gain	institutional factors	market research	offices
heat islands	instrumentation	market	oil boilers
heat loss	insulation	segmentation	oil furnaces
heat pump water heaters	integrated resource planning	market transformation	on-site surveys
heat pumps	integrated systems	marketing	operating profiles
heat recovery	*intensities (see energy intensities)	marketing strategies	operation
heat storage	international	mass media measurement	operation and maintenance (O&M)
heat transfer heaters	international programs	measurement & verification	organizational culture
heating	international programs	methane (CH <sub>4</sub> )	outdoor air flow rates
heating cost allocation	interruption rates	mildew	ozone
heating load	joint implementation	minimum efficiency standards	participation rate
heating oil	kerosene	miscellaneous equipment	passive solar
heating system efficiency	kerosene heaters	mobile homes	passive ventilation
high mass houses	labeling	modeling	pattern analysis
home energy rating systems (HERS)	landscaping	models	payback period
hospitals	leaking electricity	modular boilers	pay-for-performance
hot water demand	least cost utility planning (LCUP)	moisture	peak demand
hourly variations	legislation	monitoring	peak load
house doctoring	life-cycle cost	monitoring and verification	peak shifting
households	lifestyles	multifamily buildings	performance contracting
humidifiers	lighting	natural gas	performance incentives
humidity	lighting control systems	natural gas utilities	performance monitoring
HVAC contractor	lighting controls	natural resource conservation	performance rating and certification
HVAC control systems	lighting equipment	NBECS (Nonresidential Building Energy Consumption Survey)	performance-based codes
HVAC controls	lighting retrofit	net energy	persistence of savings
HVAC systems	lighting systems	new buildings	petroleum
ice maker heat pumps	load calculation	net savings	photovoltaic cells
ice ponds	load control	new construction	planned communities
impact evaluation	load cycling	new construction practices	planning
implementation	load management	new construction programs	plant retrofits
incandescent lighting	load shapes	new homes	policy options
incentive mechanisms	loads	new product management	polycymaking
incentives	loans	next-generation	*pollution (see air pollution)
indirect costs	local programs	night setback/setup	pollution control
indoor air pollution	logit	nitrogen dioxide (NO <sub>2</sub> )	pollution prevention
indoor air quality	logit analysis	nitrogen oxides (NO <sub>x</sub> )	potential market
industrial buildings	lost opportunities		power management
industrial codes and standards	low-flow		prefabricated houses
industrial equipment	showerheads		pressurization
industrial programs	low-income		
industrial sector	low-income housing		
	low-income weatherization		
	maintenance		
	*management (see energy		

preventive maintenance	research and development (R&D)	solar water heating	thermostats
PRISM	residential buildings	space cooling	tiered pricing
process control	residential codes and standards	space heating	time series analysis
process evaluation	residential programs	*standards (see residential, commercial, or industrial codes and standards)	time-of-day pricing
procurement policy	restaurants	state programs	time-of-day use
profit	restructuring	statistical models	total energy systems
profitability	retail buildings	steady-state models	tracer gas
program design	retrofits	*storage (see energy storage)	trade allies
propane	roofs	storm doors	training
psychological aspects	schools	storm windows	transmission planning
public education	scorekeeping	stranded benefits	transportation
public energy policy	seasonal efficiency	sulfur dioxide (SO <sub>2</sub> )	travel behavior
public funding	seasonal equipment efficiency rating (SEER)	super-efficient	trees
public housing	seasonal variations	superinsulated homes	uncertainty
public opinion	self-selection bias	sustainable cities	universities
public policies	sensor service sector	sustainable efficiency programs	urban forestry
public-sector buildings	shading	sustainable energy future	urban heat island
public/private partnerships	shared savings	system sizing	utility
public utilities	shareholders	takeback effect	utility automation
public utility commissions	incentives	tax credits	utility deregulation
pumps	short-term monitoring	technical criteria	utility programs
quality control	showers	technology assessment	validation
radiant barriers	simulation	technology assistance	variable air volume system (VAV)
radiators	simulation/forecasting	technology diffusion	variable speed drive
radon	single-family buildings	technology procurement	vent dampers
rate analysis	skylights	technology transfer	ventilation
rate impacts	small businesses	tenant metering	verification
rate structure	smog modeling	thermal analysis	warranties
rates	socioeconomic factors	thermal comfort	waste heat recovery
real-time pricing	software	thermal energy storage	water conservation
real-time rates	solar cells	thermal mass	water heaters
rebates	solar collectors	thermal model	water heating
recycling	solar cooling	thermal performance	water usage
RECS (Residential Energy Consumption Survey)	solar drying	thermal savings	weather
refrigerators	solar heat gain	thermostat settings	normalization
regional analysis	solar heating		weatherization
regulation	solar ponds		weatherstripping
regression analysis	solar refrigeration		whole building design
reliability			wind
renewable energy sources			*windows (see fenestration)
renovation			wood
rental housing			wood-burning appliances
			zone heating
			zoning

We used a keyword list developed by the Princeton University Center for Energy and Environmental Studies (CEES) as the basis for preparing this list. We would like to thank the CEES for sharing its list with the Summer Study.