



Helping Your Business Save Energy
Discover the economic and environmental benefits of energy efficiency.



ENERGY RESOURCE CENTER

Energy Efficiency and Sustainability Seminars for Commercial and Industrial Businesses



The Gas Company's
Energy Resource Center
9240 Firestone Blvd.
Downey, California 90241-5388

ADDRESS SERVICE REQUESTED

Seminar Schedule: Second Quarter 2010

Wasting energy is like burning money.

If you have energy efficiency challenges...we have solutions!

Discover the wealth of benefits that energy efficiency can offer your organization. Stay up-to-date on the latest energy-efficient, cost-saving opportunities, technologies and certification programs. Take advantage of the education and training offered by The Gas CompanySM at the Energy Resource Center, the company's LEED[®]-certified facility and showcase for energy-efficient technologies, sustainable building practices and more. Check out the valuable classes we're offering this quarter, which are part of our commitment to providing your business with exceptional service.



Except where otherwise noted, all seminars are held at:

The Gas Company's Energy Resource Center, 9240 Firestone Blvd., Downey, CA 90241.

9th Annual Municipal Green Building Conference and Expo



Port of Long Beach
Photograph courtesy of Gensler, Santa Monica

"Advancing the Vision"

(Seminar #22929)

Wednesday, April 14

Time: 8 a.m. - 4:30 p.m. (7 a.m. check-in and continental breakfast. Lunch provided.)

Cost: Free

Each year the U.S. Green Building Council (USGBC)-Los Angeles Chapter and Southern California Gas Company bring together Southland municipal policy makers and implementers, along with leading architects and engineers to further the development of a sustainable and energy-efficient future. Breakout sessions will feature all aspects of sustainable design, construction and operations practices for buildings and communities-including their impact on people, climate, the environment and the economy.

Morning Keynote Speaker: Bill Reed, AIA, LEED, Hon. FIGP

An internationally recognized proponent and practitioner in sustainability and regeneration, Bill Reed is president of the Integrative Design Collaborative-a consulting organization working to evolve green building design practice. He is a principal of the regenerative design planning firm, Regensis, and the educational group, Delving Deeper. His work centers on creating the framework for, and managing, an integrative whole systems design process.

Ultimately, his objective is to improve the overall quality of the physical, social and spiritual life of our living places.

Bill is a founding board member of the U.S. Green Building Council. In addition to numerous endeavors, he is on the Advisory Board for Environmental Building News, co-author with the Seven Group of "The Integrative Design Guide to Green Building: Redefining the Practice of Sustainability" and has been guest lecturer at universities ranging from Harvard and MIT to the University of British Columbia.

Afternoon Keynote Speaker: Panama Bartholomy, Advisor to Karen Douglas, California Energy Commission

As advisor to Commissioner Douglas, Panama Bartholomy has been called upon as point person for climate change, land use, renewable energy, transmission, green building and bio fuels policy. Currently serving on the City of Sacramento's Planning Commission and the County of Sacramento's Environmental Commission, he is also president of USGBC-Northern California Chapter. Previously, Panama has worked for the California Conservation Corps on vocational environmental education and the Division of the State Architect, where he ran the Sustainable Schools program.

These programs are funded by California utility customers and administered by Southern California Gas Company under the auspices of the California Public Utilities Commission. California consumers are not obligated to purchase any product or service mentioned in these programs.

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Co-sponsored with:



REGISTRATION IS EASY:

For seminar details, more information about the ERC and its location, or to register for seminars, call 1-800-427-6584 and select option one, fax us at 1-562-803-7551 or call the Energy Resource Center direct at 1-562-803-7500. Please be prepared to supply the seminar number. Also, visit our web site at seminars.socialgas.com or e-mail us at erc@socialgas.com.

Except where otherwise noted, all seminars are held at The Gas Company's Energy Resource Center, 9240 Firestone Blvd., Downey, CA 90241.

Programs: Program content and speakers are subject to change without notice. Space is limited, and all programs are offered on a space-available basis.

The Gas Company reserves the right to cancel any program. In the event of such cancellation, The Gas Company has no responsibility for non-refundable or other costs incurred by registrants in anticipation of any program. Registrants must be 16 years of age or older, and casual business attire is requested. Cancellation policy: Written or verbal notice of cancellation by registrant should be received by The Gas Company at least seventy-two (72) hours prior to the start of the program.

Disclaimer: Content of seminars and other program information is general in nature and not guaranteed or warranted to provide solutions to any specific situation. Content is provided for information purposes only. The Gas Company is not responsible for the views, interpretations or recommendations made in any program, which reflect the positions of the presenters. The Gas Company does not endorse any particular product, manufacturer or service discussed, and does not represent that any goods or services are fit for any purpose or use.

NAME		
TITLE	COMPANY	
STREET		
CITY	STATE	ZIP
PHONE	FAX	

E-MAIL Please send schedules and event notices to my e-mail address.

HVAC SEMINARS:

QUALITY INSTALLATION, MAINTENANCE AND SERVICE IN THE CALIFORNIA HVAC MARKET (CAQI/CAQM/CAQS) SERIES:

Location: The Gas Company
9400 Oakdale Ave., Chatsworth, CA 91311

- Electrical Module: Part 1 (Seminar #22227) Wednesday, April 7
- Electrical Module: Part 2 (Seminar #22228) Thursday, April 8
- Electrical Module: Part 3 (Seminar #22229) Wednesday, April 14
- Electrical Module: Part 4 (Seminar #22230) Thursday, April 15
- Systems Diagnostics Module: Part 1 (Seminar #22235) Tuesday, May 18
- Systems Diagnostics Module: Part 2 (Seminar #22236) Wednesday, May 19
- Systems Diagnostics Module: Part 3 (Seminar #22237) Tuesday, June 1
- Systems Diagnostics Module: Part 4 (Seminar #22238) Wednesday, June 2

Location: The Gas Company's Energy Resource Center
9240 Firestone Blvd., Downey, CA 90241

- Electrical Module: Part 1 (Seminar #22223) Tuesday, April 20
- Electrical Module: Part 2 (Seminar #22224) Wednesday, April 21

- Electrical Module: Part 3 (Seminar #22225) Tuesday, April 27
- Electrical Module: Part 4 (Seminar #22226) Wednesday, April 28
- Systems Diagnostics Module: Part 1 (Seminar #22231) Tuesday, May 4
- Systems Diagnostics Module: Part 2 (Seminar #22232) Wednesday, May 5
- Systems Diagnostics Module: Part 3 (Seminar #22233) Tuesday, May 11
- Systems Diagnostics Module: Part 4 (Seminar #22234) Wednesday, May 12
- Systems Performance Module: Part 1 (Seminar #22239) Tuesday, June 1
- Systems Performance Module: Part 2 (Seminar #22240) Wednesday, June 2
- Systems Performance Module: Part 3 (Seminar #22241) Tuesday, June 8
- Systems Performance Module: Part 4 (Seminar #22242) Wednesday, June 9

COMMERCIAL/RESIDENTIAL SEMINARS:

- Using Infrared Cameras in Moisture and Building Envelope Investigations (Seminar #22888) Wednesday, May 19

INDUSTRIAL TECHNOLOGIES SEMINARS:

- Combustion Seminar (Seminar #22000) Wednesday and Thursday, April 21 and 22

- Well and Pump Engineering: Gaining Efficiency through Technology (Seminar #22850) Thursday, April 29
- Cooling Tower Design and Operation (Seminar #22002) Wednesday, June 9
- Cooling Tower Water Treatment Management for Energy Conservation (Seminar #22003) Wednesday, June 23
- Introduction to Industrial Thermographic Applications (Using Infrared Cameras to Improve Energy Efficiency) (Seminar #22879) Monday and Tuesday, June 14 and 15

SUSTAINABILITY SEMINARS:

- Municipal Green Building Conference and Expo: "Advancing the Vision" (Seminar #22929) Wednesday, April 14
- Biomimicry: Planning and Designing with Nature (Seminar #22982) Thursday, May 20
- EnergyPro® Envelope and Windows (Seminar #22947) Wednesday, May 26 (8:30 a.m. - 11:30 a.m.)
- EnergyPro® Indoor and Outdoor Lighting (Seminar #22948) Wednesday, May 26 (1 p.m. - 4:30 p.m.)
- EnergyPro® Mechanical (Seminar #22949) Thursday, May 27 (8:30 a.m. - 11:30 a.m.)
- EnergyPro® Advanced (Seminar #22950) Thursday, May 27 (1 p.m. - 4:30 p.m.)

ENERGY RESOURCE CENTER

Energy Efficiency and Sustainability Seminars for Commercial and Industrial Businesses

HVAC

Quality Installation, Quality Maintenance and Quality Service in the California HVAC Market (CAQI/CAQM/CAQS)

Time: 6 p.m. - 9 p.m. (5:30 p.m. check-in and dinner.)

Cost: Free



The Gas Company and IHACI are proud to continue presenting the new set of courses focusing on quality installation, maintenance and service of HVAC systems in California. Each

series of courses focuses on a particular HVAC appliance and covers all areas required to properly design, install, commission, maintain, service, diagnose, and verify proper operation. These courses help provide participants with the skill sets and tools to ensure that the systems they work on are safe, reliable and operating as efficiently as possible.

Electrical Module: Parts 1 - 4

This four-part seminar starts with the practical fundamentals and theory behind basic electricity, and systematically provides participants with knowledge of electrical symbols, components, wiring diagrams, electronics and electrical systems. Participants will be exposed to the comprehensive skill sets required to properly install, commission, maintain, service, diagnose and verify that the HVAC electrical systems they are working on are safe, reliable and operate at the correct settings for highest energy efficiency possible.

Location: The Gas Company
9400 Oakdale Ave.
Chatsworth, CA 91311

Electrical Module: Part 1
(Seminar #22227): Wednesday, April 7
Electrical Module: Part 2
(Seminar #22228): Thursday, April 8
Electrical Module: Part 3
(Seminar #22229): Wednesday, April 14
Electrical Module: Part 4
(Seminar #22230): Thursday, April 15

Location: The Gas Company's
Energy Resource Center
9240 Firestone Blvd.
Downey, CA 90241

Electrical Module: Part 1
(Seminar #22223): Tuesday, April 20
Electrical Module: Part 2
(Seminar #22224): Wednesday, April 21
Electrical Module: Part 3
(Seminar #22225): Tuesday, April 27
Electrical Module: Part 4
(Seminar #22226): Wednesday, April 28

System Diagnostics Module: Parts 1 - 4

This four-part seminar starts with the fundamentals and theory behind the residential and light commercial diagnostic process and covers all aspects of the HVAC system including the mechanical, electrical, refrigeration, air distribution, gas, venting, condensate, indoor air quality and whole house concept sections. This seminar will equip its participants with the broad skill sets required to properly obtain, record, evaluate, analyze, identify and eliminate all operating problems reported and revealed thru the diagnostic process and concludes by verifying that the HVAC systems they are working on are safe, reliable and operate at the highest capacity and energy efficiency possible.

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System Diagnostics Module: Part 1
(Seminar #22231): Tuesday, May 4
System Diagnostics Module: Part 2
(Seminar #22232): Wednesday, May 5
System Diagnostics Module: Part 3
(Seminar #22233): Tuesday, May 11
System Diagnostics Module: Part 4
(Seminar #22234): Wednesday, May 12

These seminars are specifically tailored to the unique needs of the HVAC industry and are co-sponsored by The Institute of Heating and Air Conditioning Industries, Inc. (IHACI).



Location: The Gas Company
9400 Oakdale Ave.
Chatsworth, CA 91311

System Diagnostic Module: Part 1
(Seminar #22235): Tuesday, May 18
System Diagnostic Module: Part 2
(Seminar #22236): Wednesday, May 19
System Diagnostic Module: Part 3
(Seminar #22237): Tuesday, June 1
System Diagnostic Module: Part 4
(Seminar #22238): Wednesday, June 2

System Performance Module: Parts 1 - 4

This four-part seminar starts with the fundamentals and theory behind residential and light commercial HVAC system performance with an overview of Quality Design (QD), Quality Installation (QI), Quality Maintenance (QM) and Quality Service (QS) as applied in the California market (CAQD/CAQI/CAQM/CAQS). It introduces and details the "whole house" concept, outlines the instruments and field techniques required to measure HVAC system performance, and resolve any issues discovered. This seminar gives its participants the complete skill sets required to understand and evaluate the whole HVAC system and provide the client with an HVAC system that will be safe, reliable and operate at the highest capacity and energy efficiency possible.

Location: The Gas Company's
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System Performance Module: Part 1
(Seminar #22239): Tuesday, June 1
System Performance Module: Part 2
(Seminar #22240): Wednesday, June 2
System Performance Module: Part 3
(Seminar #22241): Tuesday, June 8
System Performance Module: Part 4
(Seminar #22242): Wednesday, June 9

Commercial/Residential

Using Infrared Cameras in Moisture and Building Envelope Investigations (Seminar #22888)

Wednesday, May 19

Time: 8:30 a.m. - 4 p.m.
(8 a.m. check-in and continental breakfast. Lunch provided.)

Cost: Free

This one-day program will focus on two things: (1) Education in the science and application of thermal imaging for moisture investigations and building envelope investigations. (2) IR camera specifications needed to properly perform these investigations. This

is your opportunity to learn both the proper use of—and the limitations of—this non-invasive technology.

Sign-up for My Account and save the environment too!

Did you know that for every 2,900 customers who switch to paperless billing, we save one ton of paper, 16,450 gallons of water and 1,941 pounds of solid waste? And we avoid emitting 5,058 pounds of greenhouse gases.* Here's a simple way to help the environment. Have your recent gas bill handy and sign up for paperless billing on your business or residence through My Account at www.socalgas.com.

For more information about what My Account offers, go to www.socalgas.com.

*Environmental impact estimates were made using the Environmental Defense Paper Calculator.

Industrial Technologies

Combustion Seminar (Seminar #22000) Wednesday and Thursday, April 21 and 22

Time: 8:30 a.m. - 2:30 p.m. (8 a.m. check-in and continental breakfast. Lunch provided.)

Cost: Free

This two-day training session is designed to give participants a basic knowledge of natural gas equipment, combustion and air quality guidelines. Topics will include efficient and cost-effective ways to maintain and operate gas-burning equipment, energy conservation, incentive programs and compliance with air quality regulations.



Well and Pump Engineering: Gaining Efficiency through Technology (Seminar #22850)
Thursday, April 29

Time: 8:30 a.m. - 4 p.m. (8 a.m. check-in and continental breakfast. Lunch provided.)

Cost: Free

This workshop will focus on the latest technologies available for increasing well and pump performance

through equipment selection and regular pump equipment evaluation, testing and maintenance. The discussion emphasizes how to evaluate competing technologies and select an optimal technology based on performance, capital expense and operating expense.

Qualifying course for the Department of Health Service (DHS) Continuing Education, (6 contact hours)

Cooling Tower Design and Operation (Seminar #22002)

Wednesday, June 9

Time: 9 a.m. - 3 p.m. (8:30 a.m. check-in and continental breakfast. Lunch provided.)

Cost: Free

This course will review typical cooling tower designs, applications, basic sizing criteria and energy-efficient operations. It will also cover terminology used in the cooling tower industry.

Cooling Water Treatment Management for Energy Conservation (Seminar #22003)

Wednesday, June 23

Time: 9 a.m. - 3 p.m. (8:30 a.m. check-in and continental breakfast. Lunch provided.)

Cost: Free

Sustainability

Biomimicry: Planning and Designing with Nature (Seminar #22982) Thursday, May 20

Time: 8:30 a.m. - 4:30 p.m.
(8 a.m. check-in and continental breakfast. Lunch provided.)

Cost: Free

Biomimicry offers a holistic and deeply rooted method to achieving true sustainability. Nature embodies more than four billion years of experience perfecting the designs and behaviors to make organisms and living systems thrive. Discover how to solve real-life design challenges by applying nature's design successes. As a planning and design approach for single and multi-building developments or as an auxiliary tool for LEED® (Leadership in Energy and Environmental Design) or the Living Building Challenge, this workshop will provide you with new tools, knowledge and inspiration to design for sustainability, energy efficiency and beyond. Education Credits: 6 AIA learning units.

EnergyPro® (State-certified Software): Envelope and Windows (Seminar #22947) Wednesday, May 26

Time: 8:30 a.m. - 11:30 a.m.
(8 a.m. check-in and continental breakfast.)

Cost: Free

Learn how to model and document Title 24 compliance for building envelopes. Participants in this workshop will practice using the latest version of EnergyPro 5.0,

an energy modeling software certified by the State of California. Explore advanced envelope design options. Learn about new fenestration requirements, and how to select windows for maximum energy efficiency and comfort.

Education Credits: 3 AIA learning units.

EnergyPro® (State-certified Software): Indoor and Outdoor Lighting (Seminar #22948)

Wednesday, May 26

Time: 1 p.m. - 4:30 p.m.
(12:30 p.m. check-in and lunch.)

Cost: Free

Learn how to model and document Title 24 compliance for commercial lighting designs. Participants in this workshop will practice using the latest version of EnergyPro 5.0, an energy modeling software certified by the State of California. Explore lighting analysis basics, the proper application of advanced fixture technologies to energy-efficient designs and how cost-effective lighting designs can maximize potential energy efficiency incentives. Education Credits: 3 AIA learning units.

EnergyPro® (State-certified Software): Mechanical (Seminar #22949) Thursday, May 27

Time: 8:30 a.m. - 11:30 a.m.
(8 a.m. check-in and continental breakfast.)

Cost: Free

This course will review typical cooling water flows, thermal transfer balances and industry-standard calculations used to determine water and chemical usage. Subjects will include the impact of water quality on cooling equipment operations, available treatment options and techniques for monitoring treatment programs to help maximize utility efficiencies.

Introduction to Industrial Thermographic Applications (Using Infrared Cameras to Improve Energy Efficiency) (Seminar #22879)

Monday and Tuesday, June 14 and 15

Time: 9 a.m. - 3:30 p.m.
(8:30 a.m. check-in and continental breakfast. Lunch provided.)

Cost: Free

This two-day training series will focus on the benefits and hands-on applications of thermographic imaging equipment. Classroom time and field work will cover electrical and mechanical systems, as well as approaches to production and process-related problems. This training series is limited to 18 attendees.