

# THE LONG ISLAND SOUNDER

ASHRAE Long Island Chapter, Region 1...Founded in 1957

February 2011



www.ashraeli.org

American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

## Inside this issue:

President's Message	1,3
Meeting Information	1
LI Chapter Officers	2
Meeting Schedule	3
PAOE	3
Program	4
BOG Minutes	5
Research Promotion	6,7
CTTC	8-11
History	12
Student Activities	13
YEA	14
Membership	14
LI Past Presidents	14
Advertisements	15,16

## President's Message

Greetings! The menace of a winter storm was the backdrop last month as Distinguished Lecturer, Mr. Mark M. MacCracken, P.E., Pte. LEED-AP, the CEO of CALMAC Manufacturing Corporation, spoke to us regarding "The Standard for the Design of High-Performance Green Buildings". He delivered a very informative presentation on the development, application, goals, and potential benefits of ASHRAE Standard 189.1. The meeting began early so we could all get out and get home safely before the snow accumulated. We thank all those who attended the meeting that night.



This month we are honored to have Distinguished Lecturer, the President of ASHRAE Society, Lynn G. Bellenger, P.E., Fellow ASHRAE as our keynote speaker for the joint meeting with USGBC. She is a partner with Pathfinder Engineers and Architects LLP, Rochester, N.Y. Bellenger is ASHRAE certified as a Building Energy Modeling Professional and a High Performance Building Design Professional. She is the first female president in the Society's 116 year history. Her presidential theme and the focus of this month's topic is "Modeling a Sustainable World". She will speak to us about the great opportunities for optimizing building performance through a collaborative approach and transforming the design process to reach the goal of net-zero-energy buildings, the future of ASHRAE and our industry.

This meeting will also be Membership and Resource Promotion night.

Concurrent with the theme, during the cocktail hour, the President of ASHRAE Society would like to meet with YEA members, anyone who is 35 years of age or younger, as they are our future. Please make it a point to come out and meet her as this is an excellent opportunity.

During the cocktail hour of the March meeting will have a back to basics YEA event. It will be a vendor sponsored 30 minute talk on design basics for all the young engineers looking to not only network but gain fundamental knowledge in building a strong foundation for the future. This will be a pilot program put together by the YEA committee and if well received, we will continue to be offered. So if it is something you are interested in please come out and show your support. Even if you are not a YEA spread the word to the young and thirsty for knowledge. Remember, we've all had mentors along the way, bring a young engineer with you in March as a great way to give back. Check out our website [www.ashraeli.org](http://www.ashraeli.org) for more details on this and other upcoming programs and events.

Also happening this month, ASHRAE Society hosted its 2011 Winter Conference at the Las Vegas Convention Center in Las Vegas, Nevada from January 31<sup>st</sup> to February 2<sup>nd</sup>. The topic was 'A Safe Bet: Zero-Energy Design'. The technical program focused on efficient use of energy, different design approaches and other topics related to refrigeration.

## CHAPTER MONTHLY MEETING

<b>DATE:</b>	<b>Wednesday, February 9, 2011</b> <b>* Special Date</b> <b>(2nd Wednesday of Month)</b>
<b>TIME:</b>	6:00 PM - Cocktails/Dinner 7:00 PM - Dinner Presentation 8:45 PM - Conclusion
<b>LOCATION:</b>	Westbury Manor South Side of Jericho Tpke. 25 Westbury, NY 11590
<b>FEES:</b>	
Members -	<b>\$40.00 (New fee)</b>
Guest -	<b>\$45.00 (New fee)</b>
Student -	\$15.00

Reservations requested, but not required.

Call (516) 333-7117

Continued on Pg. 3

## Long Island Chapter Officers & Committees

### ASHRAE 2010/2011 OFFICERS

POSITION	NAME	PHONE	FAX	EMAIL
President	Nancy Román	516.568.6509	516.568.6586	nroman@adehvac.com
President-Elect	Carolyn Arote	516.568.6550	516.568.6575	carote@adehvac.com
Vice President	Brian Simkins, LEED AP	203.261.8100	203.261.1981	bsimkins@accuspecinc.com
Financial Secretary	Andrew Manos, LEED AP	631.632.2791	631.632.1473	andym22@optonline.net
Treasurer	Janeth Costa	631.242.8787	631.242.7084	jcosta@apollohvac.com
Secretary	Richard Rosner, P.E.	631.737.9170	631.737.9171	rrosner@csflc.com
Board of Governors	Thomas Fields, P.E., LEED AP	631.737.6200	631.737.2410	t.fields@fpm-group.com
Board of Governors	Charles Lesniak	516.484.1020	516.484.0926	charles.lesniak@leapc.com
Board of Governors	Steven Giammona, P.E., LEED AP	516.827.4900	516.827.4920	sgiammona@ cameronengineering.com

### ASHRAE 2010/2011 COMMITTEES

COMMITTEE	NAME	PHONE	FAX	EMAIL
Programs & Special Events	Carolyn Arote	516.568.6550	516.568.6575	carote@adehvac.com
Membership	Thomas Fields, P.E., LEED AP	631.737.6200	631.737.2410	t.fields@fpm-group.com
Chapter Technology Transfer (CTTC)	Brian Simkins, LEED AP	203.261.8100	203.261.1981	bsimkins@accuspecinc.com
Newsletter Editor	Liset Cordero	212.643.9055	212.643.0503	liset.cordero@mgepc.net
Resource Promotion	Andrew Manos, LEED AP	631.632.2791	631.632.1473	andym22@optonline.net
Historian	Charles Lesniak	516.484.1020	516.484.0926	charles.lesniak@leapc.com
Student Activities	Richard Rosner, P.E.	631.737.9170	631.737.9171	rrosner@csflc.com
Young Engineers in Training	Charles Lesniak	516.484.1020	516.484.0926	charles.lesniak@leapc.com
Webmaster	Andrew Dubel	516.484.1020	516.484.0926	Andrew.dubel@leapc.com
Nominating	Michael Gerazounis, P.E., LEED AP	212.643.9055	212.643.0503	michael.gerazounis@mgepc.net
Reception & Attendance	Don Kane, P.E.	631.737.9170	631.737.9171	dkane@csflc.com
PR & Engineering Joint Council of LI	Peter Gerazounis, P.E. LEED AP	212.643.9055	212.643.0503	peter.gerazounis@mgepc.net
Golf Outing	Peter Gerazounis, P.E., LEED AP Steven Friedman, P.E., HFDP, LEED AP	212.643.9055 212.354.5656	212.643.0503 212.354.5668	peter.gerazounis@mgepc.net sfriedman@akfgroup.com

**Editor's Note:** The appearance of any technical data, editorial material, or advertisement in this set of publications does not constitute endorsement, warranty or guaranty by ASHRAE of any product, service, procedure, design, or the like. ASHRAE does not warrant that information is free from errors, and ASHRAE does not necessarily agree with any statement or opinion in this set of publications. The entire risk of the use of any information in this set of publications is assumed by the user. Statements made in this publication are not expressions of the Society or of the Chapter and may not be reproduced without special permission.

## President's Message (Cont'd from Page 1)

tion, standards and codes and HVAC systems, equipment, applications and fundamentals.

Looking ahead at the calendar, the annual field trip will be held in April. It will be a tour of the "Workforce Development & Technology Building" at Suffolk County Community College's Grant Campus. The tour will focus on the facilities and instructional approach used in the HVAC/R program, including computer station, hands-on work with equipment and field energy audits. In response to an increasing demand from our members, all presentations given at The Long Island Chapter dinner meetings going forward, including January 2011, will be available on our website.

Thank you for your continued support of the Long Island Chapter of ASHRAE and see you on February 9<sup>TH</sup>.

**Nancy Román - President - Long Island Chapter**

## Chapter Monthly Meeting - Program for 2010/2011

<b>September 14, 2010</b> * At Westbury Manor 🏆 Dinner Presentation - Variable Refrigerant Flow Systems Presenter: Ray Schmitt <b>REFRIGERATION NIGHT</b> <b>**1 PDH**</b>	<b>February 2011</b> <b>NATIONAL ENGINEERS WEEK</b> Feb 20 through Feb 26
<b>October 19, 2010</b> * At Westbury Manor 🏆 Dinner Presentation - Harmonic & Power Quality Presenter: Ken Scherer <b>RESOURCE PROMOTION NIGHT</b> <b>**1 PDH**</b> <i>* Meeting will be held on 3rd Tuesday of the month.</i>	<b>March 8, 2011</b> * At Westbury Manor Dinner Presentation--HVAC for Rail Transportation & new refrigerant development. Presenter: <b>YEA NIGHT</b> <b>**1 PDH**</b>
<b>November 16, 2010</b> * At Westbury Manor 🏆 Dinner Presentation - Understanding SMACNA's New Duct Leakage Standard Presenter: Mark Terzigni-SMACNA National <b>JOINT MEETING WITH SMACNA</b> <b>**1 PDH**</b> <b>STUDENT ACTIVITIES, MEMBERSHIP &amp; YEA NIGHT</b> <i>* Meeting will be held on 3rd Tuesday of the month.</i>	<b>April 12, 2011</b> <b>ANNUAL FIELD TRIP</b>  Suffolk Community College Brentwood Campus Workforce Development and Technology Building
<b>December 14, 2010</b> * At Westbury Manor 🏆 <b>HOLIDAY PARTY</b>	<b>May 2, 2011</b> * Cherry Valley Club, Garden City, NY <b>ANNUAL GOLF OUTING</b>
<b>January 11, 2011</b> * At Westbury Manor 🏆 Dinner Presentation - Standard 189.1 Standard for the Design of High-Performance Green Buildings Presenter: Mark MacCracken Distinguished Lecturer <b>**1 PDH**</b>	<b>May 10, 2011</b> * At Westbury Manor Dinner Presentation- Emerging Filter Technology Presenter: Paul Deluliis <b>STUDENT ACTIVITIES NIGHT</b>
<b>February 9, 2011</b> * At Westbury Manor Dinner Presentation- Modeling a Sustainable World <b>Presenter: Lynn Bellenger-</b> <b>President ASHRAE &amp; Distinguished Lecturer</b> <i>*Meeting will be held on 2nd Wednesday of the month.</i> Joint Meeting with USGBC <b>RESOURCE &amp; MEMBERSHIP PROMOTION NIGHT</b> <b>**1 PDH**</b>	<b>June 14, 2011</b> * At Westbury Manor  <b>PAST PRESIDENTS &amp; OFFICER INSTALLATION</b>
<b>February 2011</b> <b>ASHRAE WINTER MEETING</b> - Jan 31-Feb 2 Las Vegas Convention Center, 3150 Paradise Rd, Las Vegas, NV	

**August 2011 - Chapter Regional Conference Region I**  
**New York, NY August 18-20**

## PAOE POINTS FOR 2010/2011

Chapter Members	Membership Promotion	Student Activities	Research Promotion	History	Chapter Operations	CTTC	Chapter PAOE Totals
295	250	125	615	225	1,090	575	2,880

## February Program



### Dinner Presentation

**“Modeling a Sustainable World ”**

*Presented by*

**Lynn G. Bellenger, PE, Fellow ASHRAE**  
**2010-11 ASHRAE President**  
**ASHRAE DISTINGUISHED LECTURER**

**Attendees  
Will Earn  
1 PDH!**

<b>DATE:</b>	<b>WEDNESDAY, FEBRUARY 9, 2011 (SPECIAL DATE)</b>		
<b>Time:</b>	6:00 PM – Cocktails and Hors D’oeuvres 7:00 PM – Dinner Presentation 8:45 PM – Conclusion	<b>Fee:</b>	<b>\$ 40.00 Member (New Fee)</b> <b>\$ 45.00 Guest (New Fee)</b> \$ 15.00 Student
<b>Location:</b>	<b>WESTBURY MANOR</b> (516) 333-7117 Jericho Tpke (South Side), 3/10 of mile east from Glen Cove Rd., Nassau County, NY. <b>Directions are posted at @ <a href="http://www.ashraeli.org">www.ashraeli.org</a>.</b>		
<b>Presentation:</b>	This month’s presentation, <i>Modeling a Sustainable World</i> , notes that in energy simulation, daylight analysis, CFD and BIM software, we have powerful modeling tools that enable us to create and refine our vision of a building – its appearance, systems, operation and performance. Those resources, used effectively in an integrated design process for new buildings and in analyzing retrofit opportunities in existing buildings, will help us guide building owners, architects, developers, and contractors in building orientation, shading, and shape and in selecting materials, windows, equipment, and systems that optimize building performance.		
<b>About our Speaker:</b>	<p><b>Lynn G. Bellenger, P.E., Fellow ASHRAE</b>, is a partner with Pathfinder Engineers and Architects LLP, Rochester, N.Y. Bellenger is ASHRAE certified as a Building Energy Modeling Professional and a High Performance Building Design Professional.</p> <p>Ms. Bellenger is the first female president in the Society’s 116 year history. She formerly served as president-elect, treasurer and vice president. As ASHRAE’s president, Ms. Bellenger directs the Society’s Board of Directors and oversees the Executive Committee.</p> <p>Ms. Bellenger is a recipient of the Exceptional Service Award, the Distinguished Service Award, two first-place ASHRAE Technology Awards and the Lincoln Bouillon Membership Award.</p> <p>She received a Bachelor of Science in mathematics from Principia College and a Master of Science in environmental science from Rutgers University.</p>		

CHAPTER MAY NOT ACT FOR SOCIETY

An International Organization

## Board of Governors Meeting Minutes

DATE: Tuesday, January 11, 2011

LOCATION: Westbury Manor

Attendees were Nancy Roman, Carolyn Arote, Brian Simkins, Janeth Costa, Andy Manos, Richard Rosner, Tom Fields, Charlie Lesniak, Steven Giammona and Guests Andrew Dubel and Donald Kane. President Nancy Roman called the meeting into session at 5:01 PM.

**General: Nancy Román** – Asked to approve the meeting minutes from the last meeting which then were approved. January newsletter articles are due in one week. Copies to be sent to Andrew Dubel, [Andrew.Dubel@leapc.com](mailto:Andrew.Dubel@leapc.com) & Anthony Bikowski [abikowski@dnbmechanical.com](mailto:abikowski@dnbmechanical.com) when submitting articles to Nancy and Liset. A number of Long Island Chapter ASHRAE members registered and attending the winter meeting and will be good for additional PAOE points. Email Nancy if you are going or already have gone.



**Programs: Carolyn Arote & Don Kane** – Informed Westbury Manor and speaker, dinner/presentation will start 6:45pm and last 1hr. due to snow. Calendar of events for the remainder of the year to be updated. Reported on SMACNA's payment for attending the November meeting. Presented a field trip update planned at Suffolk Community College at their new Brentwood HVAC/R building and program. It is likely that PDH credits will be offered for this event.

**Resource Promotion: Andy Manos** - Stated he had the entire product guide ads sold for this year and the costs for publishing have been finalized.

**History: Charles Lesniak** – The interview for the February newsletter was discussed and he updated PAOE points.

**Webmaster: Andrew Dubel** – PAOE Update. Calendar link to be provided by Anthony to have the actual golf outing date of May 2<sup>ND</sup> 2011. Also the event calendar is to be updated for the remaining months of this year.

**Treasury: Janeth Costa** – A report was given showing a financial update, with TD Bank having a balance of \$10,203.54 and the money market account having \$8,016.80. Tom Fields will follow Janeth as the next treasurer.

**Membership Promotion: Tom Fields** – Some members are not keeping their membership current and Tom will be sending some reminders.

**Student Activities: Richard Rosner** – A Student Poster Contest for high schools is moving along. Since many students seem to have class on Tuesday nights and are free on Wednesday nights a push to get some students down to our meeting in February is being made.

**Chapter Technology Transfer (CTTC): Brian Simkins** – A PAOE update was given. Star chapter web services were looked at. A discussion was made on applicable codes.

**YEA: Charlie Lesniak, Andrew Dubel** – The article for February Newsletter was discussed as well as Mentor status. A PAOE update was given. Lynn Bellenger, ASHRAE President, and our guest speaker for February, will be giving a 15 minute session for YEA members prior to dinner and her main lecture. There will be a March "Back to Basics" meeting for YEA members.

**Golf Outing: Steve Friedman, Peter Gerazounis** – The date is May 2<sup>ND</sup> 2011.

Having discussed all open issues, the meeting was adjourned at 5:52 PM.

**Richard L. Rosner, P.E.**  
**Chapter Secretary, 2010-2011**



## Research Promotion

I would like to thank the companies who have participated in the annual 2011 Product Directory of Manufacturers and their Representatives.

The Product Directory has been prepared as a service to all its members and as a service to the local HVAC industry. It will be made available to all ASHRAE and non-ASHRAE members at no-cost and can be obtained from our monthly meetings or directly from our web-site.

The Directory is intended to provide better communications between manufacturers and their sales representatives; engineers who specify products; contractors who purchase and install the equipment; and other interested parties. Product Directory listings are not limited to ASHRAE members and the listings are not to be considered as advertising or endorsement by ASHRAE of any product, manufacturer or representative.

This year's overall resource promotion goal is \$2,001,900 with over 75 research projects on board. Our chapter is expected to raise approximately \$12,881 towards the overall goal of which we have already raised \$9,210. I am hoping I can count on the continued support of all of our past contributors who have generously supported us over the years. I also look forward to gaining the support of new contributors this coming year. Please help support ASHRAE in any way you can.

I would like say 'thank you' to all the contributors listed below whom have already donated to ASHRAE this year:

### INDIVIDUALS

Mr Andrew B Dubel  
 Mr Andrew E Manos  
 Mr Anthony J Rosasco, Sr  
 Mr Brian C Simkins  
 Ms Carolyn Arote  
 Mr Charles J. Lesniak  
 Mr David Robert Jendras  
 Mr Douglas Constantine, PE  
 Mr Evans J Lizardos  
 Ms Janeth Costa  
 Mr Jerome T Norris  
 Mr Jerome A Silecchia  
 Mr John D Nally  
 Mr Michael Gerazounis, PE, LEED AP  
 Mr Michael O'Rourke  
 Ms Nancy Roman  
 Mr Patrick J Lama  
 Mr Raymond G Schmitt  
 Mr Richard L Rosner, PE  
 Mr Ronald J Kilcarr, PE  
 Mr Steven D Friedman, PE, HFDP, LEED AP  
 Mr Steven R Giammona, PE  
 Mr Thomas Fields, PE

### COMPANIES

Accuspec Inc  
 Air Control Supply  
 A O Smith Water Heaters  
 Applied Technologies of NY Inc  
 Carrier Northeast  
 Catan Equipment Sales  
 Chimney Design Solutions Inc  
 Clean Air Company  
 Daikin US Corp.  
 Dellon Sales  
 J-Mar Controls  
 Lizardos Engineering Associates PC  
 Mason Industries Inc  
 Mitsubishi Electric & Electronics USA Inc  
 M V Controls  
 Rathe Associates  
 Siemens Building Technologies Inc  
 Taco Inc  
 Technical Air Systems Incorporated  
 Twinco Supply Corporation  
 Viessmann  
 Wales Darby Incorporated

## Research Promotion (Cont'd. from Page 6)

### CONTRIBUTIONS CAN BE MADE IN THE FOLLOWING WAYS:

1) You can mail your checks, made out to ASHRAE Resource Promotion, to:

Andrew Manos  
ASHRAE Research Promotion Chair  
c/o Stony Brook University  
Campus Planning, Design and Construction  
Research and Support Services, Suite 160  
Development Drive, Stony Brook, NY 11794-6010

2) You can bring your check to any of the meetings and give it to me. I will mail it into headquarters.

3) You can contribute via paypal from the ASHRAE LONG ISLAND web site just click on the donate button.

4) You can contribute directly on-line. [www.ashrae.org](http://www.ashrae.org)

**\* Please make sure your accredit your contribution to the LONG ISLAND CHAPTER 006 \***

Thank you again for all your support!

**Andrew Manos, LEED AP**  
**Resource Promotion Chair**

**Mission:** To improve the quality of life and to answer tomorrow's questions through research TODAY.

Over \$2million raised annually to help fund \$10million in research projects and student grant-in-aids.

Research is used to update the Society's standards and guidelines.

Contributions come from more than 6,700 members, non-members, and companies.

100% of all funds raised go directly to research projects that support the HVAC&R industry.

Active research projects are conducted all around the world at various universities and private organizations.

ASHRAE RESEARCH PROMOTION

#### Important Links:

[www.ashrae.org/rp](http://www.ashrae.org/rp)

[www.ashrae.org/contribute\\*](http://www.ashrae.org/contribute*)

[www.ashrae.org/consumer](http://www.ashrae.org/consumer)

[www.ashrae.org/pressroom](http://www.ashrae.org/pressroom)

[www.ashrae.org/research](http://www.ashrae.org/research)

\*ASHRAE is a qualified 501(c)3 and all contributions are tax deductible.

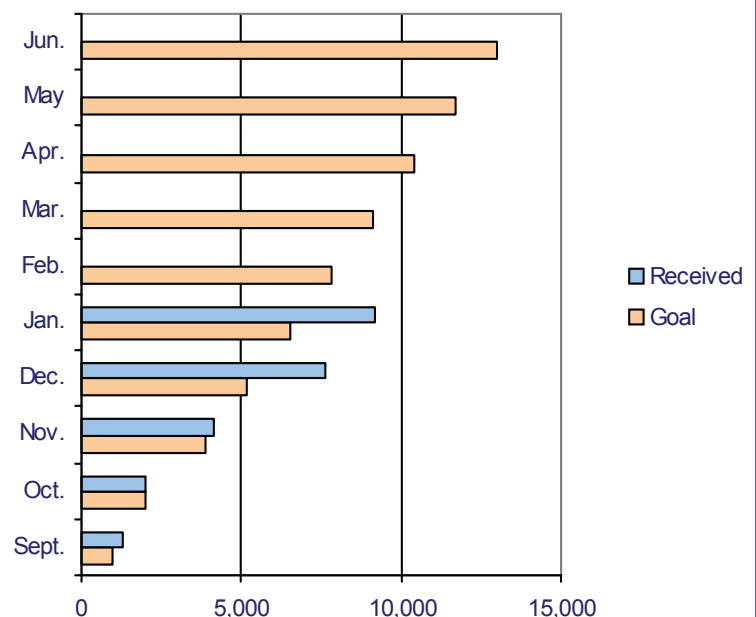
#### Important Contacts:

Patricia Adelman  
RP Manager  
(404)636-8400 ext. 1114  
PAdelman@ashrae.org

John Rhodes  
RP Committee Chair  
(972)206-2590  
Gopher56@swbell.net

ASHRAE RESEARCH PROMOTION

### Chapter Resource Promotion Goal For 2010-2011 - \$12,881



## CTTC - Modeling a Sustainable World - Lynn G. Bellenger's Presidential Theme

Lynn G. Bellenger, P.E., Fellow ASHRAE, is a partner with Pathfinder Engineers and Architects LLP, Rochester, N.Y. Bellenger is ASHRAE certified as a Building Energy Modeling Professional and a High Performance Building Design Professional.

Bellenger is the first female president in the Society's 116 year history. As ASHRAE's president, Bellenger directs the Society's Board of Directors and oversees the Executive Committee. Her presidential theme, ***Modeling a Sustainable World***, notes that in energy simulation, daylight analysis, CFD and BIM software, we have powerful modeling tools that enable us to create and refine our vision of a building – its appearance, systems, operation and performance.

### Modeling a Sustainable World

By Lynn G. Bellenger

2010-2011 ASHRAE President, P.E., Fellow ASHRAE

---

I'd like to take you back in time to your childhood. To a time when you were dreaming of making a difference in the world, of being a powerful influence for good. That time is now. Never in the history of our industry has there been a greater need or a better opportunity to change the world. And the global community is looking to us to lead the way, to be the role models for the 21st century.

"Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world."

This marks the fifth consecutive year that the presidential theme has focused on sustainability. This focus should be so ingrained in our lives that our mission "to serve humanity and promote a sustainable world" inspires our daily decisions.

My presidential theme, *Modeling a Sustainable World* highlights the role ASHRAE members play as leaders in sustainable design. In energy simulation, daylight analysis, computational fluid dynamics and building information modeling software, we have powerful modeling tools that enable us to create and refine our vision of a building – its appearance, systems, operation and performance. Those resources, used effectively in an integrated design process for new buildings and in analyzing retrofit opportunities in existing buildings, will help us guide building owners, architects, developers and contractors in building orientation, shading and shape and in selecting materials, windows, equipment and systems that optimize building performance.

### From Physical to Virtual Models

Years ago, designers constructed physical models of major projects to illustrate their concept of the building's form and appearance. These scale models took days and weeks to prepare and once completed, could only be changed with great difficulty.

Today, we have the tools to create a virtual model that can be completed more quickly and can be modified easily to consider options in size, shape and appearance. But more than just a visual representation, our models can simulate energy performance, assess daylighting options and predict thermal comfort.

### Integrated Design

To exploit the full capability of these modeling tools, we must transform our design approach from a sequential process—where one discipline completes its work and hands off the design to the next—to a collaborative process—where all of the disciplines involved in the building design and construction work as team from the beginning to evaluate options and optimize the design.

Integrated building design requires thinking about the building and its elements as interlinked and interdependent systems, so that a single design refinement may simultaneously improve performance of several building systems.

Our biggest challenge is implementing integrated design in daily practice. The traditional approach, where the architect designs the building shape, orientation and envelope and then transmits the drawings to the mechanical and electrical engineers for their design, is a sequential approach that misses the rich opportunities for optimizing building performance through a collaborative approach throughout the design process. It is going to require a cultural shift in our industry to transform the design process, and it's a shift that has to occur if we are going to reach our goal of net zero energy buildings.

Continued on Pg. 9



**CTTC (Cont'd. from Page 8)**

Numerous studies of unsuccessful projects can trace the project failure to a lack of communication between the architect and the engineer; between the mechanical engineer and the electrical engineer; between the engineer and the contractor. To succeed in the 21st century, it's imperative that we cultivate stronger communication skills and embrace collaboration with the design team as the only way to optimize building performance.

**Existing Buildings**

Optimizing the design of new buildings is an exciting and challenging goal as we move toward net zero energy buildings. But as President Gordon Holness reminded us this year, 98 percent of construction dollars in the U.S. are being spent on existing buildings. While that percentage varies around the globe, *Sustaining Our Future by Rebuilding Our Past* remains our strongest opportunity to make an immediate impact on worldwide energy consumption.

Consider where we are now and where we are headed.

**Best Available Technology**

Every four years, the Energy Information Agency conducts the Commercial Building Energy Consumption Survey. The 2003 survey of 4,820 buildings shows a national average energy use intensity of 90 kBtu/ft<sup>2</sup> for the existing commercial building stock in the United States.

An NREL study completed in 2007 created energy models for all 4,820 buildings in the CBECS database and then examined the results if these commercial buildings complied with Standard 90.1-2004, our minimum energy efficiency code. The results are an energy use intensity of 70.7 kBtu/ft<sup>2</sup> or savings of 10.7 percent.

What if those buildings used technologies and practices expected to be available by 2025? The average energy use intensity in this scenario is 40.3 kBtu/ft<sup>2</sup>, or less than half the current energy consumption. Adding photovoltaics to half the roof area and exporting excess power takes us to 12.2 kBtu/ft<sup>2</sup>, close to our goal of net zero energy buildings. And make no mistake, net zero energy buildings are being built today of all types and sizes in diverse climate zones around the world.

Here's a sample of net zero energy buildings presented at ASHRAE's Net Zero Energy Building conference in 2009: An off-grid nature center in Los Angeles; a 48,000 square foot office building in Los Altos; a business school in Germany; an energy research center in Australia; an office and shop near Albany, New York.

**Plug Loads**

As the envelope, lighting and HVAC loads diminish, the remaining loads take on increased significance. A realistic estimate of plug and process loads is critical in optimizing HVAC system sizing and performance during design; it also is essential to control after occupancy.

As an example, consider an office building that has a day time plug load of 1 W/ft<sup>2</sup>. If 10 percent of the equipment remains on at night, then the annual energy use intensity for those plug loads is roughly 5 kBtu/ft<sup>2</sup>. But if 30 percent of the equipment remains on during unoccupied hours, then that equipment energy use almost doubles.

In future zero energy buildings, plug and process loads are expected to be the largest energy end use. Building owners and occupants must understand the positive impact of converting to laptops and purchasing Energy Star equipment. And they have to understand the negative impact of failing to control plug and process loads during unoccupied hours.

**Progress Last Year**

ASHRAE is committed to developing the tools to design net zero energy buildings. Within the past year, the sixth and final guide in the 30 percent Advanced Energy Design Guide, or AEDG, series was completed, and over 250,000 guides have been downloaded. This collaborative effort with DOE, IES, USGBC and AIA is transforming the market. An independent assessment of the market impact showed widespread use for new buildings as well as major retrofit projects and on building types outside the small commercial market.

Development of the 50 percent AEDG series is underway, with completion targeted for 2012, and net zero guides will follow.

## CTTC - (Cont'd. from Page 9)

### **Standard 189.1**

In collaboration with our partners, USGBC and IES, ASHRAE published Standard 189.1, the first high performance green building standard. Representing almost four years of intense effort, the project committee has produced an excellent document that already has been widely recognized for its value in our industry. Standard 189.1 is an alternate compliance path for the International Code Council's International Green Construction Code and is being published and marketed as part of that document.

### **Standard 90.1**

ASHRAE developed Standard 90.1, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, in 1975, so the emphasis on energy efficiency and using resources wisely isn't anything new. You might say it has been an underground movement for three decades and has come to the forefront in recent years.

This year marks the 35th anniversary of our flagship energy conservation standard, and the 2010 version of 90.1 will be published later this year. Working within the constraints of strict economic justification and a prescriptive format, the committee has achieved remarkable energy savings across all building types and U.S. climate zones.

In a relentless quest for improving our minimum energy conservation standard, they have processed 116 addenda. Eighty-seven of those will be incorporated in the 2010 version and 29 more are in public review or comment resolution. The 90.1 project committee has done a terrific job and deserves our praise and thanks.

We have other standards dealing with energy efficiency. Standard 90.2, our residential energy conservation standard, was adapted for use in Kuwait through a collaborative effort between ASHRAE and Kuwait University, and a similar effort is underway for Standard 90.1. And Standard 100, our energy conservation standard for existing buildings, is undergoing an extensive re-write.

The Winter Meeting in Orlando saw the launch of our certification for Building Energy Modeling Professionals, and a new certification for Energy Assessors is in progress and should be ready by our January Winter Meeting in Las Vegas.

During his presidential year, Bill Harrison's theme was *Maintain to Sustain*, recognizing the vital role of building owners and operators in achieving and maintaining building performance. We now have a working draft of Guideline 32, *Sustainable, High Performance Operations & Maintenance*, which will go out for public review later this year.

### **Research Strategic Plan**

At this meeting, Tech Council will approve a new Research Strategic Plan written by an expert panel of volunteers. This guidance document was developed collaboratively over a three year period with input from ASHRAE chapter members, technical committee members and others in our industry.

Each of the 11 strategic goals includes objectives, a description of technical challenges, and a list of needed research. Here's a sample of a few of the 92 research projects proposed in the plan that relate to modeling: Develop more accurate methods to relate building energy simulation models to actual building energy use; continue to develop BIM to automate the creation of energy models from architectural/mechanical/electrical BIM data files; update existing energy analysis calculation engines to model building components and systems that will be needed to meet current and future; energy Standards, including the ultimate NZEB goals; develop models and design procedures for natural and hybrid ventilation systems.

### **What Our Members Need**

Building modeling is a growing segment of our industry, with modeling projects often assigned to men and women just entering the field. Those few of us who have been modeling for decades must share our expertise with a new generation. And the most valuable lesson we can share is that buildings operate as systems rather than a collection of components.

Our members need educational programs on how to accurately and efficiently model new and existing buildings and how to interpret the results. We must provide training on modeling existing buildings and calibrating those models without compromising integrity. We have to develop techniques to model innovative HVAC systems. And, above all, we must look at buildings as systems, and expand our understanding of building science beyond HVAC&R. To become experts in

**CTTC (Cont'd. from Page 10)**

high performance buildings, we must improve our knowledge of building envelope performance, thermal mass effects in buildings, passive solar, daylighting, human comfort and much more.

This next generation of modelers is intelligent, enthusiastic and passionate about changing the world. We must to equip them with the tools and resources they need and then watch out as they design net zero energy buildings—like these homes that college students built and exhibited at the 2009 Solar Decathlon!

**Technical Committees**

We also must harness the talent of the Millennium Generation in our technical committees. Our 103 TCs and Task Resource Groups are a rich resource of information on specialized, cutting edge technology. Over 3,200 men and women, or 6.5 percent of our members, participate in the vital activities of the TCs in initiating and supervising research, sponsoring programs and authoring our handbooks.

We communicate these accomplishments through research reports, seminars and symposiums and publications, and also through our TC websites and newsletters. We need to revitalize our TC websites and use the enthusiasm and expertise of our young engineers in ASHRAE to explore new avenues of communication such as Facebook and Google Groups.

We've talked about the need for integrated building design, with early and close cooperation among members of the design team. We also need to encourage and support interaction between our technical committees and, if appropriate, integrate their activities to increase and leverage their effectiveness.

We also need to energize some TCs to produce design guidance that is robust and clear in months, rather than years. And then communicate that information to our members and others in the design community so they can put this expert knowledge to use in designing, retrofitting and commissioning buildings that will perform reliably, efficiently and effectively for decades to come.

**What You Need to Do**

I spoke earlier of the cultural shift that must occur to implement integrated design. We must embrace change, push the boundaries and engage all of the stakeholders in building design, construction and operation.

Our challenge is to approach every project with innovation, not repetition, and to challenge ourselves to find the elegant solutions that will minimize energy use and provide exceptional indoor environmental quality. People will judge us on our performance, not our promises.

**Closing**

In our centennial year, President Billy Manning said we are *Building on the Shoulders of Giants*. Today, we are called to become the giants of our industry, to set the example of innovation and dedication that future generations will remember when they look back on the time when buildings ceased being net consumers of energy and became net zero energy, and even producers of energy.

People need heroes; we admire excellence; we respect courage; we long for the expression of these qualities in our own lives and we cherish them wherever we find them. Today, this month, this year, I'm calling on you to be the heroes. To set the example in energy efficiency, in elegant, innovative solutions to meeting the energy needs of today and the future. To model a sustainable world.

**Brian Simkins****CTTC**

## History

I decided to do another interview for this month's Sounder and I interviewed Mr. Steve Friedman PE, HFDP, LEED AP of AKF Engineers.



### What made you become an engineer?

I wasn't sure what I wanted to do after high school, so I went to see my high school guidance counselor, who was also family friend. He said "Steve, do you know what you want you to do in life after high school?" I wasn't sure so he said "OK..let's look at your academics, hmmm..you're not so interested in English, social studies or history, but you're very strong in math, chemistry and physics. You're going to be an engineer, consider becoming a mechanical or nuclear engineer". In order to study nuclear engineering, I would have had to study through the armed forces, which I did not want to pursue.

### Where did you go to school and when did you graduate?

I attended SUNY Farmingdale in 1984, graduating with a bachelor's degree in Mechanical Engineering in 1988.

### When and where was your first engineering job?

I was a project engineer for a mechanical contractor, Penguin Air Conditioning Corp. in Brooklyn, NY.

### What was the most memorable project you worked on?

The most memorable and exciting project was the design and renovation of Radio City Music Hall in New York City in 1996-97. I was the project captain and lead mechanical engineer. It encompassed space program changes and infrastructure upgrades of the mechanical and electrical systems which were all very old. One of the obstacles we faced is that the building is a landmark building and the interior finishes in most of the occupiable (front of house) spaces could not be altered. Most of the mechanical components, air handlers and refrigeration machines, required to be knock down construction, routed and field erected so as to not disturb the finishes. Additionally the central chiller plant in Rockefeller Center, which serviced the Music Hall, needed an increase in capacity due to increased heat loads relative to newer technology and ventilation air requirements. Under physical restraints, the new air handler coils physical size could not be increased. Our chiller plant design encompassed piping new and existing chillers in series to gain a lower discharge water temperature to compliment the physical restraints of the air handler coils. The new chiller plant design increased environmental comfort throughout the entire facility.

### What ASHRAE positions have you held?

I started on the board of governors in 2000, I have been through every board chair and have been the Research Promotion chair twice on my way to becoming the Chapter President

### When were you the chapter president? 2008-2009

### What do you think are some of your best accomplishments with ASHRAE?

Aside from the enjoyment of being a Long Island Chapter board member, I have decided to further my ASHRAE career.. Currently I am the ASHRAE Region I Refrigeration Chair, I am also on ASHRAE Society level Refrigeration Committee. I am a standing committee member for ASHRAE Standard SSPC-170 "Ventilation of Healthcare Facilities". I am also an active member of ASHE (American Society of Healthcare Engineers), which works with ASHRAE to improve and provide guidance within Healthcare faculties.

**Charlie Lesniak**  
Chapter Historian

## Student Activities

We hope that students who haven't been able to attend our normal Tuesday evening meetings will be able to attend our special February 9<sup>th</sup> **Wednesday** meeting. Please encourage any engineering students to attend. We will all be treated to a technical presentation from our national president Lynn Bellenger who is going to also give a short talk to YEA members before her presentation. This is a don't miss evening!!!!

As usual our meetings are a wonderful chance for students to network with the regional engineering community and to gather insight into the field. Don't forget to seek out any students attending this meeting and introduce yourself but better than that, ask your extended families, friends, neighbors or coworkers what their kids will be doing with their careers and see if you can get them to come to the meeting. Involving the students now will lead to active members in the future.

Students please remember to renew your memberships. Also don't forget if you are graduating this year that you will have to update your email address and other contact information as required so that you don't miss future mailings from ASHRAE.

The deadline for applications for the Long Island Chapter Scholarships is May 1, 2011. If you need an application email me at [rosner@nassausuffolkea.com](mailto:rosner@nassausuffolkea.com). The next Student Activities night will be on May 10th.

Please find additional information on the web at the below links:

### Quick Links to Student related topics

<a href="#">ASHRAE Long Island Links to _various Scholarships</a>	<a href="#">2011 Student Design Competition</a>
<a href="#">ASHRAE Student Zone</a>	<a href="#">Careers &amp; Internships</a>
<a href="#">Senior Undergraduate Project Grants</a>	<a href="#">Student Activities Educational Resources</a>
<a href="#">Young Engineers in ASHRAE</a>	<a href="#">ASHRAE National Scholarships</a>

**Richard L. Rosner, PE**

**Student Activities Committee Chair**

**Anita B. Singh, LEED AP**

**Assistant Student Activities Committee Chair**



### **Donate your old Handbooks**

*Please bring your old handbooks to the meetings for donations to our student members who do not have complete sets at this time. Rich Rosner will be collecting them.*



## Young Engineers in ASHRAE (YEA)

Hello to everyone, this year our chapter is starting a new committee that ASHRAE started. It is called YEA, Y-E-A or "Yea" both pronunciations work. It stands for Young Engineers in ASHRAE. The purpose of YEA is to help bring in younger engineers to participate in ASHRAE both at the local levels and national levels. Joining YEA is simple, if you are under 35 and filled out your birthday properly when you enrolled in ASHRAE you are automatically signed up. YEA has its own section under the ASHRAE website with a newsletter, information, blogs, and Facebook information. The website for the YEA blog is [www.ashraeyea.org/](http://www.ashraeyea.org/) this blog contains news posts, videos and information resources. Please take a look at this website. Our chapter has one more night geared towards YEA, this will be during our March monthly meeting, so please attend.

During the February meeting the President of ASHRAE society Lynn G. Bellenger, P.E. would like to speak to all the YEA members at our chapter for 15 or 20 minutes during the cocktail hour. This is a great opportunity to meet the president of the society, so please try and make it to this month's meeting it should be very interesting. Even if you do not qualify as a YEA please tell any of your coworkers who are under 35 to attend and participate in ASHRAE. Please help the society continue to grow and start by sending a YEA a copy of the Sounder. In the future we are planning to have sessions specifically tailored for YEA's during the cocktail hour. It will involve having Q&A session and back to the basics discussion. More details to follow in the next month's Sounder.

**Charlie Lesniak**  
**YEA Chairman**

## Membership

A benefit of ASHRAE membership is discounted pricing on ASHRAE educational materials and courses. A variety of courses are available at [www.ASHRAE.org/education](http://www.ASHRAE.org/education) and at [www.ashrae-elearning.org](http://www.ashrae-elearning.org).

The ASHRAE E-learning website includes interactive courses that are perfect for individuals and corporations who need to update their technical knowledge, meet PDH/CEU requirements for licensing and certification, or provide engineering staff training.

ASHRAE eLearning offers over a hundred courses in HVAC, refrigeration, high-performance green buildings, and data centers. Each allows you to train around your schedule, saving you time and travel expenses.

Also available are Self Directed Courses, which offer you access to well-designed course material without leaving your home or office. The course format allows you to review and study the material at your own pace and provides exercises that enable you to evaluate how well you are learning the material. These fundamentals courses are available in print form for all topics.

Please take the time to review these resources.

**Thomas J. Fields, PE, LEED AP**  
**Membership Chairman**

## Long Island Chapter - Past Presidents

1958	H. Campbell, Jr. PE	1984	Raymond Combs
1959	Clyde Alston, PE	1985	Edward W. Hoffmann
1960	Sidney Walzer, PE	1986	Jerome T. Norris, PE
1961	Sidney Gayle	1987	Abe Rubenstein, PE
1962	William Kane	1988	Michael O'Rourke
1963	Louis Bloom	1989	Mel Deimel
1964	Milton Maxwell	1990	Robert Rabell
1965	Will Reichenback	1991	Gerald Berman
1966	Joseph Minton, PE	1992	Donald Stahl
1967	Irwin Miller	1993	Ronald Kilcarr
1968	Walter Gilroy	1994	Jerald Griliches
1969	Charles Henry	1995	Walter Stark
1970	William Wright	1996	Joe Marino
1971	Louis Lenz	1997	Norm Maxwell, PE
1972	Ronald Levine	1998	Alan Goerke, PE
1973	Henry Schulman	1999	Frank Morgigno
1974	Myron Goldberg	2000	Michael Gerazounis, PE, LEED AP
1975	John N. Haarhaus	2001	Ray Schmitt
1976	Richard K. Ennis	2002	Steven M. Stein, PE
1977	Kenneth A. Graff	2003	Andrew Braum, PE
1978	Evans Lizardos, PE	2004	Claudio Darras, P.E.
1979	Albert Edelstein	2005	Craig D. Marshall, P.E.
1980	Ralph Butler	2006	John Nally
1981	Robert Rose, PE	2007	Peter Gerazounis, PE, LEED AP
1982	Timothy Murphy, PE	2008	Steven Friedman, PE, HFDP, LEED AP
1983	Leon Taub, PE	2009	Steven Giammona, P.E., LEED AP

## ADVERTISEMENTS

**PLACE YOUR  
AD HERE**



MATT ROMANELLI  
E-MAIL: MROMANELLI@GIL-BAR.COM

**GIL-BAR INDUSTRIES**

**NEW YORK OFFICE**  
5 WEST 19TH STREET  
NEW YORK, NY 10011  
TEL: (212) 331-8272  
FAX: (212) 331-8273

**LONG ISLAND OFFICE**  
25 NEWBRIDGE ROAD  
HICKSVILLE, NY 11801  
TEL: (516) 216-4310  
FAX: (516) 869-4042



631-491-1300 x16  
FAX 631-491-8551

**Ultimate Power Inc.**

INDUSTRIAL BURNERS • BOILERS  
GAS • OIL • BURNER SERVICE • A/C & INSTALLATION  
NATIONAL BOARD CERTIFIED "R" STAMP REPAIR CO.  
DDC CONTROL SYSTEMS  
MECHANICAL CONTRACTORS FOR OVER 36 YEARS

RONALD MILANO

45 NANCY STREET  
WEST BABYLON, NY 11704-1498

EMAIL: RMILANO@ULTIMATE-POWER.COM

Thomas E. Luerssen  
PRESIDENT



• HEATING & AIR CONDITIONING  
• SHEET METAL • SERVICE

440 WYANDANCH AVENUE, N. BABYLON, N.Y. 11704-1590  
(631) 643-3433 Ext. 332 FAX (631) 491-6983  
Email: TL@anronac.com

**PLACE YOUR  
AD HERE**

Frank D. Morgigno - President/CEO fm@atiofny.com



90 Plant Ave. • Ste. 110 • Hauppauge, NY 11788  
Tel: 631-331-0215 • Fax: 631-926-4625  
www.atiofny.com



Kevin Cirincione  
President

**COUNTY ENERGY CONTROLS, LLC**  
A wholly owned subsidiary of County Pneumatic Controls, Inc.

Web-Based Energy Management Systems

429 Montauk Hwy - POB 780 p: (631) 653-9124  
East Quogue, NY 11942 f: (631) 653-9177  
www.countyenergycontrol.com e: kevin@countyenergycontrol.com



**Gilmour Supply Co.**  
The Davidson Group

**Rick Gaska**

Tel (718) 832-7900 • Fax (718) 965-9675 • Cell (516) 297-5861  
rick@gilmoursupply.com • www.gilmoursupply.com

**PLACE YOUR  
AD HERE**



Right People. Right Results.®

Michael J. Inzerillo  
Senior Manager

Data Center Assessment and Design

Direct: (631) 639-1203  
Cell: (631) 291-5490  
mjinzerillo@customonline.com  
www.customonline.com

70 Suffolk Court, Hauppauge, NY 11788

**SIEMENS**

Siemens Building Technologies, Inc.

50 Orville Drive  
Bohemia, NY 11716

Tel: (631) 218-1000 Ext. 226  
Fax: (631) 218-1009

melvin.deimal@siemens.com  
www.siemens.com/buildingtechnologies

Mei Deimal  
Senior Account Executive



STEVE BERGMAN

**TWINCO SUPPLY CORP.**

TEMPERATURE CONTROLS  
MOTOR STARTERS  
PANEL DESIGN & FABRICATION  
HVAC SUPPLIES

55 CRAVEN STREET, HUNTINGTON STATION, NEW YORK 11748-2143  
(516) 547-1100 NYS (800) 794-3188 FAX (800) 326-TWIN  
www.twincosupply.com

**PLACE YOUR  
AD HERE**



**BEST  
CLIMATE CONTROL CORP.**  
75 ORVILLE DRIVE  
BOHEMIA, NY 11716

AIR CONDITIONING  
SYSTEMS

MICHAEL O'DRUPKE

TEL (631) 218-8022  
FAX (631) 218-8023



Established 1958

**County Fair Air Conditioning Corporation**

233 GRAND BLVD • WESTBURY, NY 11590-3589  
(516) 397-5656 • (718) 347-7808 • FAX (516) 397-5741  
choigereen@countyfair.com • mnathan@countyfair.com

CARL HOLGERSON RONALD J. NATHAN  
Owner Owner

MECHANICAL CONTRACTORS • SALES • SERVICE • ENGINEERING

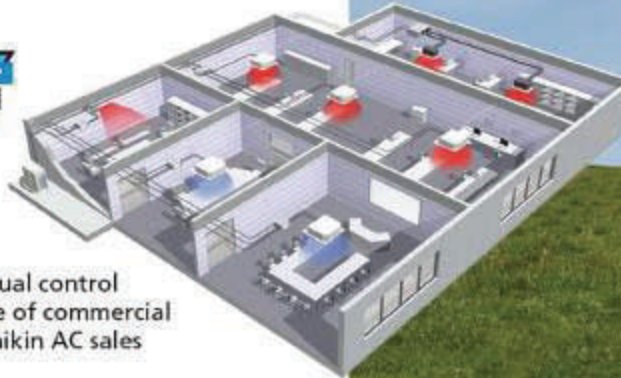


## ADVERTISEMENTS

**The balance of design with responsibility.** At Daikin, we work to achieve a remarkable balance ...providing air conditioning solutions that are environmentally conscious. We commend the efforts of ASHRAE for designing their new energy efficient and sustainable corporate headquarters. Together we set an example of social responsibility and commit to the preservation of resources for current and future generations. **Try a better perspective, try Daikin AC.**



Daikin's VRV – Variable Refrigerant Volume



Daikin's VRV provides individual control and comfort for a wide range of commercial projects. Contact our local Daikin AC sales engineers in New York City:

- Brandon Sulikowski: 516-729-5544 - brandon.sulikowski@daikinac.com
- Ray Schmitt: 631-335-7116 - ray.schmitt@daikinac.com
- James Moran: 516-784-6010 - james.moran@daikinac.com

**866-4DAIKIN :: [www.daikinac.com](http://www.daikinac.com)**



**DAIKIN AC**  
absolute comfort



Systems That Power  
Energy Solutions



**SPEAKMAN®**



Boiler Systems Inc.



FLOW DESIGN INC.



WATER CONTROL

**PLACE YOUR  
AD HERE**

**chimney  
DESIGN  
solutions**  
VOICE: 212-685-7077 FAX: 212-685-4777  
[chimney design solutions.com](http://chimneydesignsolutions.com)

*If you would like to place an advertisement in The Long Island Sounder please contact our Chapter Treasurer, Ms. Janeth Costa @ 631-242-8787 or via email [jcosta@apollohvac.com](mailto:jcosta@apollohvac.com) for further details.*

*Thank you.*

### **New Advertising Rates:**

<b>Business Card</b>	<b>\$200</b>
<b>Triple Size</b>	<b>\$350</b>
<b>Half Page</b>	<b>\$500</b>

Visit the **Wales-Darby Energy Learning Center** at  
2910 Express Drive South  
Islandia, New York 11749  
631.585.6800 Comm'l FAX: 631.471.4950  
e-mail us at [info@walesdarby.com](mailto:info@walesdarby.com)  
visit our website at [www.walesdarby.com](http://www.walesdarby.com)