THE LONG ISLAND SOUNDER

March 2009

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

www.ashraeli.org

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

Inside this issue:

President's Message

Greetings fellow Ashrae members and business colleagues. I am thrilled to have been a part of February's meeting as our annual joint meeting with SMACNA Long Island was most successful. I would like to thank all of the SMACNA and Ashrae attending members for their support, especially Paul Parker of SMACNA together with our programs chairperson Steven Giammona for orchestrating this event. We had close to 100 professionals in attendance, a spectrum of sheet metal contractors, mechanical contractors, air testing and balancing professionals, sales, applications and design engineers. While there was a long awaited visit from Distinguished Lecturer, Mitch Swann PE, LEEP AP, on Design Build of Sustainable Buildings, the lecture was informative and certainly allot learned by all. Mitch spoke to and included the audience in his discussion and it was very well received.

I would also like to thank our past presidents in attendance for their continued support of the Long Island Chapter. They are: (1988) Mr. Michael O'Rourke, (1993) Mr. Ron Kilcarr, PE (1994) Mr. Jerald Griliches, (1996) Mr. Joe Marino, (1997) Mr. Norm Maxwell, PE (1998) Mr. Alan Georke PE and immediate past president (2007) Mr. Peter Gerazounis, PE LEED AP.

February was also Student Activities Night and I was delighted to see both high school and college students in attendance. I would like to recognize Tom Fields, PE, Brian Simkins and Carolyn Cammalleri, LEED AP for their continued efforts with the current and future engineering students of Long Island.

Peter Gerazounis is in the process of trying to arrange joint meetings with the Nassau County Chapter of the New York State Society of Professional Engineers (NYSSPE) and the American Institute of Architects (AIA Long Island). If anyone has contacts and/or is a part of these organizations, please get in contact with Peter. We look forward to expanding our horizons.

Our 10th annual Ashrae Long Island golf outing is set for May 4th; we are currently receiving applications for this event and is expected to fill quickly. Please send your applications into Peter Gerazounis or myself to guarantee your placement in this great event. Also, we are

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CHAPTER MONTHLY MEETING

DATE:	**Tuesday, March 10, 2009**
TIME:	6:00 PM - Cocktails/Dinner 7:00 PM - Dinner Presentation 8:45 PM - Conclusion
LOCATION:	Westbury Manor South Side of Jericho Tpke. 25 Westbury, NY 11590
FEES: Members - Guest - Student -	 $35.00 $40.00 $15.00

Reservations requested, but not required.
Call (516) 333-7117

Long Island Chapter Officers & Committees

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Board of Governors	**Peter Gerazounis, P.E. LEED AP**	212.643.9055	212.643.0503	peter.gerazounis@mgepc.net

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PR & Engineering Joint Council of LI	**Peter Gerazounis, P.E. LEED AP**	212.643.9055	212.643.0503	peter.gerazounis@mgepc.net
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President Message (Cont'd.)

looking for new and continued sponsors, whether they are individual or company, for the outing. They include the pro shop raffle prizes at dinner, food and beverage services on the course and giveaways during check in. This is Ashrae Long Islands' biggest fund raiser and we rely on your generosity.

I look forward to seeing everyone at our March meeting. Thank you for your continued support of the Long Island Chapter.

Steven Friedman, HFDP
President - Long Island Chapter

Chapter Monthly Meeting - Program for 2008/2009

September 9, 2008 * At Westbury Manor - **1 PDH** Dinner Presentation - DDC Controls **MEMBERSHIP PROMOTION NIGHT**	**February 2009** **NATIONAL ENGINEERS WEEK DINNER**
October 14, 2008 * *At Westbury Manor* - **1 PDH** Dinner Presentation - Condensing Boiler Design **STUDENT ACTIVITIES NIGHT**	**March 10, 2009** * *At Westbury Manor* - **1 PDH** Dinner Presentation - Energy Recovery Systems **RESOURCE PROMOTION NIGHT**
November 18, 2008 * *At Westbury Manor* - **1 PDH** Dinner Presentation - Design/Build of LEED Projects **ASHRAE DISTINGUISHED LECTURER** **DR. TOM LAWRENCE, PH.D., P.E., LEED-AP** **RESOURCE PROMOTION**	**April 14, 2009** **FIELD TRIP - John Harvard's Brewery**
December 16, 2008 Holiday Party - Westbury Manor	**May 4, 2009** * *Cherry Valley Club, Garden City, NY* **ANNUAL GOLF OUTING**
January 13, 2009 * *At Westbury Manor* - **1 PDH** Dinner Presentation - Cooling High Density Heat Loads in Data Centers **MEMBERSHIP PROMOTION NIGHT**	**May 12, 2009** Dinner Presentation - TBD **REFRIGERATION NIGHT**
January 24-28, 2009 ASHRAE Winter Meeting - Chicago, IL	**June 9, 2009** * *At Westbury Manor* **PAST PRESIDENTS & OFFICER INSTALLATION**
February 10, 2009 * *At Westbury Manor* **JOINT MEETING WITH SMACNA** Dinner Presentation - Design Build - Executing the Project **ASHRAE DISTINGUISHED LECTURER** **E. MITCHELL SWANN, P.E., LEED AP** **STUDENT ACTIVITIES NIGHT**	**June 2009 - TBD** ASHRAE Annual Meeting
August 2009 - Chapter Regional Conference Region I	

PAOE POINTS FOR 2008/2009

Chapter Members	Membership Promotion	Student Activities	Research Promotion	History	Chapter Operations	CTTC	Chapter PAOE Totals
297	385	705	520	450	1,065	700	3,825

March Program

You are cordially invited to our March 2009 Meeting…

Dinner Presentation

"Energy Recovery Systems"

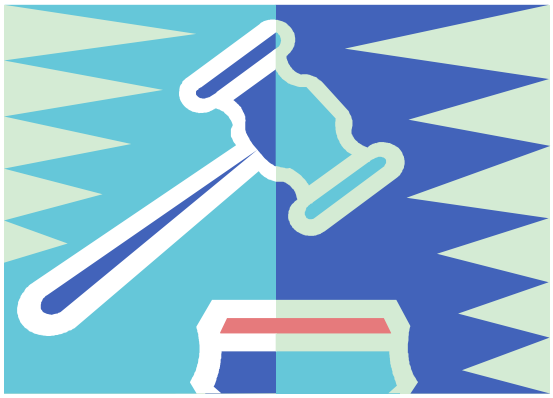
Presented by

Harvey Rubenstein
A.D.E. Systems

Attendees Will Earn 1 PDH!

DATE:	**TUESDAY, MARCH 10, 2009**		
Time:	6:00 PM – Cocktails and Hors D'ouevres 7:00 PM – Dinner Presentation 8:45 PM – Conclusion	**Fee:**	$ 35.00 Member $ 40.00 Guest $ 15.00 Student
Location:	**WESTBURY MANOR** (516) 333-7117 Jericho Tpke (South Side), 3/10 of mile east from Glen Cove Rd., Nassau County, NY. **Directions are posted at @ www.ashraeli.org.**		
Presentation:	Building exhaust air contains heated or conditioned air. Why let it go to waste? Energy recovery for commercial and institutional comfort applications is of major importance to consulting engineers and building owners. It meets two (2) important design criteria; provide the required room fresh air and, at the same time, reduce the buildings power consumption. Air conditioning tonnage and heating loads are reduced. This month's presentation will discuss the various types of energy recovery products in the market place as well as design applications.		
About our Speaker:	**Harvey Rubenstein,** from A.D.E. Systems, Inc. has 37 years of experience as a manufacturer's representative selling and specifying fans and energy recover systems for the last 10 years at A.D.E. Systems, Inc. for Greenheck line of products. Prior A.D.E. Systems, he represented New York Blower, Aerovent Fan Co., Champion Fan and Blower, and the Twin City Fan Co.		

BOG Meeting Minutes



A meeting of the Board of Governors was held on Tuesday February 10, 2009 at the Westbury Manor. Present at the meeting were Steven Friedman, Steven Giammona, Carolyn Arote, Brian Simkins, Janeth Costa, Peter Gerazounis and Andrew Manos. President Steven Friedman called the meeting into session at 5:04:

Programs- Steven Giammona discussed changing Mays meeting to be on alternative energy. Steve is looking into a potential meeting with National Grid/LIPA. Aprils meeting has been changed to John Harvard's brewery. Brian and Andrew will be going down to John Harvard's finalize the arrangements by the end of the month.

Resource Promotion- Janeth Costa has a total of 510 PAOE. She has also collected a total of $2,045 towards our year end goal.

Webmaster- Nancy Roman discussed the website is up to date and it was discussed on updating the website to make it easier to navigate.

Treasurer- Brian Simkins said he has invoiced this year's ads so that we can be paid before the year is over.

Membership – Carolyn Arote stated that she has met par for PAOE points for this year. She does a monthly e-mail/ phone call campaign for all the delinquents members to catch up on their dues. Carolyn also stated that we have twenty new members for this year.

Student Activities- Brian Simkins has met with Stony Brook University to see about reinstating the student branch here. Applications for one $1000 scholarship and (2) $500 scholarships will be made available online.

Chapter Technology Transfer (CTTC)- Andrew Manos reported all is on track and all the appropriate paper work is being done.

There being no further business to come before the meeting, the meeting was adjourned at 5:52.

Andy Manos, LEED AP
Chapter Secretary

History - A Trip into the Archives...

It was late in the afternoon and I was thumbing through our history archives looking for something good to write about. Being careful with the old yellowed paper and trying not to sneeze from the dust is challenging but it was worth the effort when I ran across this fellow. He certainly gave an interesting speech.

The speaker at the podium was a masterful orator and his presence captivated the room. He looked around at the audience and began "Weathermen, I salute you. I envy you because you defy the elements, stretch the seasons and warm, cool and ventilate the ambience. We park boys have had to be content with only four or five months of usefulness and now cherish the hope that it may be stretched to six or even seven. Your are the potential makers of a new climate to rival what Florida has to offer to retirees on moderate income, not beautiful people at the villa estates, condominiums, country club and pueblo communities described in the real estate ads."

His speech continued and he spoke of the development of the north shore of Long Island, acquiring land and the construction of parkways and parks. "We had a hell of a time getting Caumsett, the Field Estate at Lloyd's Neck. I discussed a gift with Marshall Field for years. When we finally got the place, local opponents and environmental fanatics sought to prevent access by all but confirmed environmentalists and ekisticians. Fortunately we were able when they were not looking to acquire an adequate right-of-way but the road has not thus far been built. So for a while we have what in effect is a private public park." He continued on speaking of the construction of bridges and tunnels and of transportation via rail, road and water ferries. He spoke of industrialized economy, environmental and ecological issues and the planning and engineering of cities, suburbs and metropolises. At one point he even spoke of space. "What can be said about the recent gathering of scientists, technicians and bureaucrats at Princeton and one under way at Stanford University to discuss the transfer of millions of the world's inhabitants to artificial islands in space where the gravity of the earth and moon balance in eternal sunshine, to condominiums ingeniously designed for our surplus inhabitants?"

His speech was winding down and he spoke of Guy Lombardo and his unforgettable tunes. He closed with "Goodnight. I hope I have not outstayed my welcome and am still persona grata with those I regard as partners in the industry and the preservation of the countryside." It was a Saturday evening September 20th, 1975 in the Harrison House at Glen Cove. The guest speaker was Mr. Robert Moses, speaking at the ASHRAE Region 1 CRC dinner hosted by the Long Island Chapter.

Become a part of history. Participate in the Long Island Chapter of ASHRAE.

John Nally
Chapter Historian

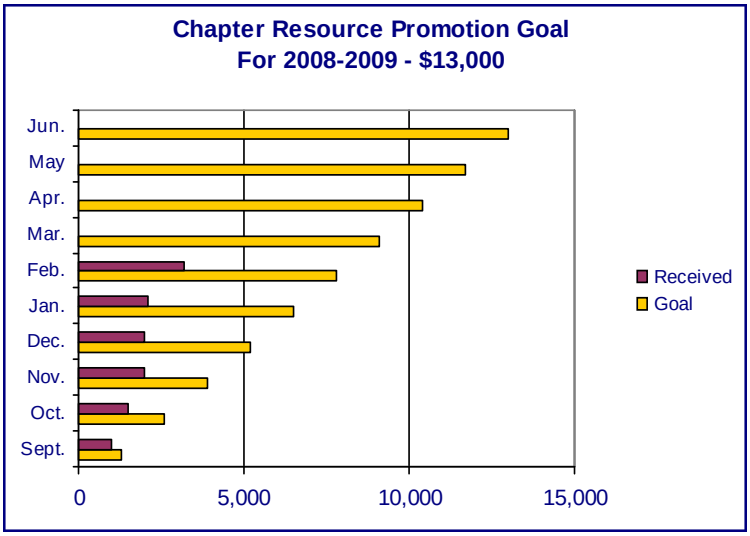
Membership

As of the end of February we at the Long Island Chapter of Ashrae have 24 new Members. This is a great year for us, as we continue to grow stronger each month. Even better is the fact that most of these new recruits have been attending the monthly meetings. Part of membership is not just paying your dues, but coming to meetings and the golf outing as a way of supporting the community and expanding your work network. Usually I am here to ask for each of you to bring a new member down to the meetings, but this month I am here simply to remind you that if you see an unfamiliar face please say hello, introduce yourself and make our newest members feel welcome so they will continue to come to meetings and keep us strong. Thank all of you that have been faithful members for years and thank you to all of our newest members!

Carolyn Arote
Membership Chairman

Research Promotion

Please help support ASHRAE by donating today. We are well behind the curve on donations to date. Your help would be greatly appreciated. Thank you to all of you who have already donated this year.



Contributions can be made in three ways:

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

Janeth Costa
Ashrae Research Promotion Chair
c/o Apollo HVAC Corp.
225 North Fehr Way
Bay Shore, NY 11706

2) You can bring your check to any of the meetings and give it to me. I will mail it for you.
3) You can contribute directly on-line. www.ashrae.org

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

Janeth Costa
Resource Promotion Chair

Long Island Chapter - Past Presidents

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

CTTC

Seasonal Energy Storage

Most buildings meet thermal loads using equipment and systems that generate or remove heat when building loads exist. Thermal energy storage (TES) enables buildings to meet heating and cooling loads using energy pro-duced at other points in time.

TES can be designed for storing and providing energy on three basic timescales: diurnal, weekly, and seasonally. Cold storage tank systems using ice or chilled water are examples of diurnal storage systems, i.e., they produce ice or chilled water in anticipation of cooling loads within the next 24 hours.

In contrast, seasonal thermal energy storage (STES) enables a building to use heat collected during the summer to heat the building in the winter, or to use snow collected during the winter to cool the building in the summer. Relative to diurnal storage systems, STES requires a much larger total size of the TES system, while the rate of charge and discharge varies much less with timescale.

STES systems consist of several components, including a heat (or coolness) source, heat exchange system, thermal dis -tribution system, thermal storage medium and thermal loads.
Ideally, an STES saves low-cost heat that would otherwise not be used. Thermal energy sources used by STES systems include solar thermal (typically low-temperature collectors), industrial waste heat, excess heat from district energy systems, snow and ice, and seawater.

Examples of thermal loads met by STES are commercial and multifamily residential building space and water heating, space heating for greenhouses, roadway deicing/snow melting, and building space cooling. In general, STES tends to be most attractive for applications with significant heating or cooling loads that are offset by several months from the peak availability of thermal resources.

For example, solar thermal collectors in Northern climates collect much larger quantities of heat during the summer than in the winter due to the longer solar days in summer, while space heating loads peak in winter. Similarly, cool STES also works best in climates where large quantities of snow and ice can be harvested during the winter to provide space cooling during the summer. Consequently, STES energy savings and economics tend to be more favorable in colder, Northern climates.

Several types of STES are used, and the most common sys-tems, namely aquifer thermal energy storage (ATES) and bore-hole thermal energy storage (BTES), store heat in the ground. Both take advantage of the fact that deeper than 33 ft to 66 ft, the ground and groundwater temperatures vary little over the course of the year to reduce thermal losses.

ATES systems transfer heat to and from groundwater in aqui-fers via wells drilled from the surface into the aquifer. Often, the wells are grouped separately, as warm and cold, to provide heating and cooling. Favorable environmental characteristics for ATES installations include high ground porosity levels and significant water content around the wells to enable effective heat transfer between the wells and the aquifer, and low ground water flow through the aquifer to avoid convection of the stored thermal energy away from the wells. Because these quali-ties fundamentally impact the viability of ATES, the aquifer must be characterized before initiating ATES projects. Both lower 50℉–104℉ and higher 104℉–302℉ temperature systems exist. Although higher te mperature systems have a greater storage capacity per volume, they have greater thermal losses and may also experience more problems with mineral precipitation.

BTES systems consist of many boreholes 0.5 ft to 0.66 ft wide drilled into the ground at depths rang-ing from 115 ft to 656 ft deep. A pump circulates a fluid (typically water or a water-glycol mixture) through pipes buried in the boreholes that transfer heat to and from the boreholes. After drilling the boreholes and installing the pipes in the boreholes, the borehole is back-filled, often with a material to enhance thermal conductivity, such as water, sand, or bentonite clay. Many BTES installations use closed systems, i.e., with a continuous pipe loop (U-pipe), while some use open systems that inject water at the bottom of the borehole and extract it near the top (but below the lo-cal water table). Desirable ground characteristics for BTES include high specific heat and thermal conductivity, as well as low groundwater flow.

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CTTC (Cont'd. from Page 8)

Both ATES and BTES require suitable ground conditions that do not always exist. Consequently, people have worked to develop other STES concepts.

Pit TES transfers heat to and from water (with or without gravel) stored in an excavated pit, with the top surface usually near or at the ground surface to reduce excavation costs.

Usually, all sides of the pit are insulated to mitigate thermal losses, particularly from the top, and the sides are made of concrete with liner to prevent water (both liquid and vapor) migration from the tank. As with BTES, plastic pipes throughout the pit transfer heat to and from the pit. The typi-cal sizes of storage tanks range from 3,500 ft3 to 353,000 ft3 for underground and partly buried tanks to 35,000 ft3 to 35.3 million ft3 for pit storage.

In addition, cold storage pits exist, including a snow storage pit used to cool a hospital in Sweden. During winter, natural and man-made snow fills the pit to create a frozen reservoir that is covered with wood chips to insulate the reservoir. During the cooling season, pumps extract the melt water from the pit and use it to cool the hospital.

Many systems also use a diurnal storage component (typi-cally a water tank) to complement the STES. This second, smaller tank acts as a thermal buffer between the STES and the heat sources and sinks, i.e., it can accept heat from the thermal resource—and transfer heat to the heating loads—at higher rates than a BTES can achieve. For example, the STES often cannot accept the peak output of solar thermal collectors during the summer. Instead, the hot water generated by the collectors primarily flows to a sizeable water storage tank during the middle of the day while the STES charges at a slower rate from the diurnal storage and the collectors throughout the day.

Other concepts considered and, to varying degrees deployed include caverns, in-soil ducts, above-ground water tanks, rock storage with air circulation, latent heat storage (using phase change materials) and thermochemical heat.

STES systems also include backup thermal energy sources, such as gas boilers and district heating systems.

STES systems may or may not have a heat pump to augment the quality of the thermal energy harvested. Each approach has its pros and cons. On one hand, a heat pump enables use of lower quality (e.g., for heating, lower storage temperature) resources, increasing the storage capacity and decreasing the first cost of the storage itself. On the other hand, it incurs the first cost of the heat pump, which can be significant. Design-ing a system without the need for a heat pump avoids its first cost, but also requires that the systems have stored energy of sufficient quantity and quality throughout demand periods to avoid significant use of backup heating or cooling sources. This usually increases the storage temperature and/or size of the STES; the former increases thermal losses, while the latter increases first cost.

Although in theory STES can be applied at any scale ranging from a single home to a sizeable community, its economics—and its efficiency—improve appreciably with scale. As a result, most systems are built for applications with higher levels of heating demand, typically several hundred to thousands of kW of maximum thermal output. Consequently, the rest of this article focuses on larger-scale STES.

Energy Savings Potential

STES saves energy by storing thermal energy that would otherwise be wasted and using it to meet a significant por-tion of building space heating, water heating, and/or cooling loads. As such, the energy savings potential of STES largely depends on the portion of these loads that the stored energy can supplant. In turn, this depends on the capacity of the STES relative to the loads and the efficiency of the STES, both of which are part of the economic optimization of a specific application.

For example, in solar thermal applications, the solar frac-tion equals the portion of the heating loads that the STES can provide. Actual and projected values for deployed so-lar thermal systems range from around 30% to more than 90%. One application of snow storage, for cooling a Swedish hospital, achieves a STES fraction of between 77% and 93%.

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CTTC (Cont'd. from Page 9)

The efficiency of STES, defined as the portion of heat trans-ferred into the STES that remains available to meet loads, also varies significantly. Important factors include effective insula-tion levels (be it from the ground in ATES or BTES or installed insulation in pit storage), STES size, storage temperature, and storage type (warm versus cold). In general, larger systems achieve higher efficiencies because thermal losses scale ap-proximately with surface area while storage capacity scales with volume. Furthermore, cold storage systems generally have higher efficiencies than warm storage systems. For ex-ample, cold ATES can achieve efficiencies of 70% or greater, while warm ATES tends to have somewhat higher losses and, therefore, lower efficiencies 50%–80% due to natural convection.

STES systems do not realize their full energy savings poten-tial immediately. As a warm STES is "charged" with thermal energy, its temperature rises and heat diffuses away through the ground. When the STES discharges, its temperature falls and the losses decrease. Nonetheless, it can take several years for the thermal energy to diffuse through the ground surrounding the STES to the point where the time-varying annual tempera-ture profile of the soil in the vicinity of the STES approaches a consistent time-varying profile from year-to-year.

Market Factors

STES has been under investigation since at least the solar boom in the 1970s, but relatively few systems exist. To date, the majority of systems have been built in Europe. The Netherlands has the largest number of STES installations: approximately 700 ATES systems in operation and annual construction volumes of 50 to 100 ATES systems over the last several years. In the Netherlands, offices account for the largest fraction of STES (~40%), with multifamily residences the next most common application.

First cost and its impact on the cost of stored energy is the foremost barrier to greater use of STES. Fundamentally, STES has a low cycling rate, i.e., it cycles once a year, amortizing its cost over a limited number of cycles. For comparison, a service hot water tank cycles approximately daily. Furthermore, since most STES deployments cannot meet all of the thermal loads, they still require backup heating (or cooling) sources and the associated costs.

Solar thermal STES systems have particularly high estimated and projected costs per unit of thermal energy provided. For ex-ample, projected (*not* demonstrated) costs of STES for two new projects in Germany equal $0.24 to $0.51 per kWh of *thermal* energy. Estimates for a 52-home STES project in Alberta, Canada, project a cost of about $0.08 per kWh (thermal). For comparison, natural gas at $10/MMBtu equals $0.034 per kWh (thermal).

Cold STES may have more favorable economics than warm STES, presumably because it displaces more costly electricity (relative to thermal energy) while also achieving significant electric demand reductions.

In addition, groundwater chemistry can create several prob-lems in ATES, including the fouling of heat exchangers and pipe clogging from the precipitation of minerals, heat exchanger and pipe corrosion, and aquifer clogging from precipitated minerals. To a significant extent, careful ATES design, operating at mod-erate temperatures (e.g., <140℉), or water treatment can help reduce or eliminate these problems.

Other barriers include the perception of high risk for STES, unfamiliarity with STES, and concerns about regulatory/environmental issues (e.g., leaking of glycol into groundwater, imbalances in ATES groundwater volumes). Furthermore, successful design and implementation of STES requires close integration between hydrologists, geologists, engineers, and architects. Ground conditions may not be favorable for ATES or BTES, or the needed space for creating pit stor-age is just not always available. However, particularly in urban areas, access to district and industrial waste heat may be available.

Ultimately, greater use of STES will require improved eco-nomics, primarily from decreasing storage cost. This suggests deploying larger STES systems, while also taking advantage of standardization to reduce costs. In addition, future decreases in the cost of solar thermal collectors would improve the eco-nomics of solar-based STES systems.

Andrew Manos
Chapter Technologies Transfer Committee Chair

Student Activities

What is the best way to spend $16?

- Lattes for you and three friends
- Sports Tickets
- Invest in your future through an ASHRAE Student Membership.

I think you know the answer.

Our job as ASHRAE members is to reach out to the students and offer them the benefits of our life experience. We are looking to develop a program by which students working through our chapter members, can obtain mentoring and internships. We need you to step forward and help. We are looking for company's that need interns lets see if we can keep some of our young talent local.

If you are a student reading this, we encourage you to participate in our local chapter activities. Let us show you what's going on in ASHRAE. We are sending requests for applicants regarding our local scholarship programs to local heads of engineering programs this month so keep a look out. If you would like to receive one directly please e-mail me and I will send it out. bsimkins@accuspecinc.com

The student activities committee could use some help with people, places and things to do. Please let us know if you have any opportunities to get some young engineers involved in ASHRAE.

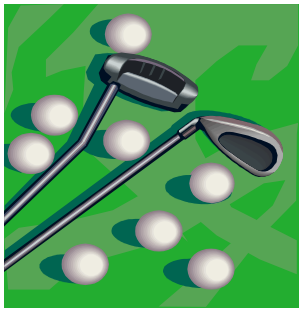
Please visit: http://www.ashrae.org/students/ for more information on all the National Student ASHRAE activities and opportunities.

Brian Simkins - Student Activities Committee

Carolyn Cammalleri, LEED AP - Vice Chair

ASHRAE Golf Outing 2009 - Monday, May 4th, 2009

10th Annual LI ASHRAE GOLF OUTING
Monday – May 4th, 2009



Place:	**Cherry Valley Club**
Brunch:	**11:00 am**
Shotgun:	**12:30 pm**
Reception:	**5:30 pm**
Dinner:	**6:30 pm**

This Event fills up fast, to guarantee a spot RSVP Soon.

(2) Foursome Limit Per Company.

Proper golf attire and shoes are required. Locker room and shower privileges are included.

CHECKS MUST BE IN BY APRIL 17, 2009 (No Exceptions)

Fax entire sheet or cut this half and return

Name: _____ Company: _____

Address: _____ Phone: _____

City, State, Zip: _____ Fax: _____

I have read and understand the Cherry Valley Rules and Regulations (Signature): _____

Guest 1: _____ Company: _____

Guest 2: _____ Company: _____

Guest 3: _____ Company: _____

Please make check payable to:

ASHRAE – Long Island Chapter

Mail Checks To:
MG Engineering, P.C.
Attn: Peter Gerazounis, P.E. LEED AP
116 West 32nd Street
New York, NY 10001
Fax No.: (212) 643-0503

Golf & Meals:	**$ 300 pp x ____**		**= $_____**
Reception & Dinner:	**$ 130 pp x ____**		**= $_____**
Sponsor Dinner:	**$1,000**	☐ **Yes**	**= $_____**
Sponsor Lunch:	**$ 500**	☐ **Yes**	**= $_____**
Sponsor Reception:	**$ 500**	☐ **Yes**	**= $_____**
Sponsor Prizes:	**$ 500**	☐ **Yes**	**= $_____**
Sponsor Beverage Cart:	**$ 500**	☐ **Yes**	**= $_____**
Sponsor Hole:	**$ 200**	☐ **Yes**	**= $_____**

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Cherry Valley Club
28 Rockaway Avenue at Third Street
Garden City, NY
Telephone: (516)746-4420
Fax: (516)746-4421

Program:

11 a.m. Brunch in the Clubroom & Lounge – including Omelet station, deluxe deli board with rolls, chicken scarpiello, danish, croissants, bagels & cream cheese, sliced nova, fresh fruit and cheeses, Good Humor ice cream cart.

12:30 p.m. Shotgun Start Golf – Playing individual scores. Prizes for long drive, closest to the pins, low gross and callaway. Refreshments at the halfway house will include packaged snacks and whole fresh fruit, hot dogs, beer & soda. A snack cart will also be on the course. Carts, forecaddies, driving range, locker room and showers are all included in the price.

5:30 p.m. Following Golf - Open Bar with hot and cold horsd'ouvres in the Main Lounge. Fresh mozzarella with sun-dried tomatoes, cajun chicken, spring rolls, baby lamb chops, sesame chicken, turkey canapés, fried oysters, cheeses, fresh fruit, lobster halves, fresh clams & oysters, shrimp and crab claws.

6:30 p.m. Reception Dinner – Awards and raffle in the Main Dining Room. Carving stations of beef tenderloin & turkey breast. Chafing dishes of chicken & salmon featuring the chef's specialty, pasta station with marinara or vodka sauce, and choice of tossed or Caesar salad. Viennese dessert table following the dinner featuring pastries, fruit, cookies, assorted cakes and pies. Full beverage service throughout is included.

Women are also invited to attend and participate. There are locker room facilities available. The Cocktail hour and Dinner will also be available for those who cannot attend during the day for the golf.

Note: We are limited to 128 golfers. Openings will be filled on a first come-first serve basis. Corporate sponsorships will be available and raffle items will be welcome. Proper golf attire is a requirement for the golf course. Soft spikes are required. Please wear a jacket for the dinner.

Directions:

From the North Shore of Long Island: Take the Long Island Expressway to Exit 34 South (New Hyde Park Road Southbound), Grand Central Parkway (Northern State Parkway) to Exit 26 South (New Hyde Park Road Southbound) or Jamaica Avenue (Jericho Turnpike) Eastbound to New Hyde Park Road. Travel Southbound on New Hyde Park Road for approximately 5 to 7 miles to Stewart Avenue (You will cross over a set of railroad tracks). Take Stewart Avenue eastbound for approximately 1-1/2 miles to Cherry Valley Avenue. Travel Southbound on Cherry Valley Avenue for 1/2 mile, Cherry Valley Avenue becomes Rockaway Avenue. Continue on Rockaway Avenue and the entrance to Cherry Valley Club will be on your right.

From Local Points North: Take Old Country Road or Stewart Avenue to Franklin Avenue. Travel Southbound on Franklin Avenue to Fourth Street (just after crossing over railroad tracks). Turn right on Fourth Street and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

From the South Shore of Long Island: Take the Southern State Parkway to Exit 19 (Peninsula Boulevard-Hempstead/Garden City). Travel Northbound on Peninsula Boulevard for approximately 1/2 mile to President Street. Bear left on President Street (Northbound) for approximately one mile and cross over Hempstead Turnpike. President Street will become Cathedral Avenue. Continue on Cathedral Avenue for one mile to Fourth Street. Make a left on Fourth Street (Westbound) and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

From Local Points South: Take Hempstead Turnpike to Franklin Avenue. Travel Northbound on Franklin Avenue to Fourth Street. Turn left on Fourth Street and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

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Cherry Valley Club
Golf Outing Guidelines

To add the enjoyment of your day, we ask that you abide by Cherry Valley Club's basic rules of The Club, dress, golf etiquette & safety, golf carts, and care of the course.

Club Rules

1. **Smoking is not permitted in the Club House.**
2. **Cell Phones are permitted in the parking lot only. Use of Cell Phones beyond the parking lot is strictly prohibited. This includes the Golf Course.**

Dress Code

1. Jeans, designer or otherwise, are not acceptable on club property. This not only includes pants, but skirts, and cut-offs.
2. T-shirts and tank tops are not in keeping with the atmosphere of the club and as such, are not acceptable. The definition of T-shirt includes those with psychedelic coloring or suggestive printing.
3. If the Main Dining room is going to be utilized for any purpose, jackets are required.
4. Short shorts are not permitted on the golf course, practice tee or putting green by either male or female. Bermuda shorts of acceptable length are permitted. Jogging attire and denim pants are not considered proper attire for the golf course.
5. **Soft spikes** are mandatory at all times on our fine golf course. If your shoes need soft spikes, arrive early so we can change them. There is a nominal fee. There is **no** exception to this rule.

Golf Etiquette and Safety

1. Slow play shows lack of consideration for the players in your group and, more important, for the players behind you. Golf is made much more enjoyable if all players adhere to the following points in the conduct of play:

    - Minimize the time spent looking for balls by watching the flight of balls hit by everyone in your group. If a ball appears to be lost or out of bounds, hit a provisional ball before leaving the tee.
    - Signal the players behind you to play through if it becomes apparent that a ball will not easily be found and you are holding up play.
    - Don't rush addressing and striking the ball but move briskly between shots.
    - If your ball is some distance from the golf cart and the exact club selection is in doubt, take several clubs with you when you leave the cart to walk to the ball.
    - When play reaches the area of the green, park the golf cart(s) behind the green or adjacent to the next tee. Walk briskly off the rear or side of the green after putting out. Mark your score cards after your group is off the green.
    - Once a score of double par has been posted, pick up and move on to the next hole.

2. No player should play until the players in front are out of range.
3. If your ball appears headed for a player or group of players immediately shout "fore" in a loud clear voice.
4. No one should move, talk or stand close to or directly behind the ball or the hole when a player is addressing the ball or making a stroke.

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Cherry Valley Club
Golf Outing Guidelines (Cont'd.)

Golf Carts

1. No more than two people are to be in a cart at one time.
2. No more than 2 bags are to be carried on one golf cart.
3. Members and their guest must observe all cart directional signs and use cart paths and designated golf cart parking areas where provided.
4. Good judgment, reasonable care, and observation of club rules are expected of any member or guest when operating a golf cart. Damaged golf carts will be repaired at the responsible member's expense. Each member or guest who rents a golf cart agrees to indemnify and hold Cherry Valley Club harmless of and free from any and all damages, judgment, court costs, attorney's fees or other expenses incidental to and incurred by Cherry Valley Club which may arise from misuse of a golf cart by such member or guest.
5. Members and their Guests must keep golf carts at least 10 yards away from greens trees or traps. They should keep a reasonable distance away from soft or wet areas and they must respect directional signs.

Care of the Course

1. Before leaving a sand trap, a golfer should carefully rake and smooth over all holes and footprints made by him.
2. From tree to green, a player should ensure that any turf cut or divot displayed by him is replaced at once and pressed down, and that any damage to the putting green made by a ball is carefully repaired.
3. Golf bags should never be brought onto a green. The flagstick should be carefully handled to ensure that no damage is done to the hole or the putting green. Don't dent the green with the flagstick or by leaning on your putter.
4. In taking practice swings, players should avoid causing damage to the course by taking divots. This is particularly true on the tees and in the vicinity of the greens.
5. Only putters are to be used on the practice greens. A separate practice green adjacent the driving range is available for chipping and sand trap practice.

ADVERTISEMENTS

ADVERTISEMENTS

If you would like to place an advertisement in The Long Island Sounder please contact our Chapter Treasurer, Mr. Brian Simkins @ 203.261.8100 or via email bsimkins@accuspecinc.com for further details. Thank you.

New Advertising Rates:

Business Card	***$200***
Triple Size	***$350***
Half Page	***$500***
Full Page	***$800***