

# Keeping it Cool with ASHRAE



Florida West Coast Chapter  
 ASHRAE  
 3203 Queen Palm Drive  
 Tampa, Florida 33619

## From the Desk of the President

Last month we had our 2<sup>nd</sup> Annual Florida West Coast Chapter Shotgun Shoot and they event was well attended and everyone had a great time. We had fifteen (15) teams this year, four (4) more than the Inaugural Event in 2010 and all of the proceeds went to Research Promotion. I want to thank Jason Proctor, Philippe Jean and Jackie Johnson for organizing, planning and executing this event. We are excited that the shotgun shoot will continue to grow over the next years.

With 2011 winding down and the Holidays are upon us, and I am sure (at least hope) that most of you are busy getting projects wrapped up and focusing on family time.

That being said, we have our FWC Monthly meeting on December 13<sup>th</sup> at NOON at the Columbia Restaurant in Ybor City. Please note that this is a **LUNCH** meeting and we will be starting promptly at Noon and will be done and out of there by 1pm.

We are proud to have Mr. Jay Egg from Egg Geothermal Systems to speak to our chapter about **Geothermal Applications**. Jay is the founder of Egg Systems, a mechanical services company focused on geothermal consulting, engineering, and contracting technologies. As well as the author of the McGraw-Hill Professional book; [Geothermal HVAC, Green Heating and Cooling](#) to date the most comprehensive text on the subject of geothermal heating and air conditioning technologies.

Please note that this is a **LUNCH** meeting and we will be starting promptly at Noon and will be done and out of there by 1pm. I hope everyone enjoys the upcoming holidays!!!

**Shawn M. Jeffrey, Sr., FWC President (2011-2012)**



## How to Contribute to ASHRAE Made Easy

### 2010-2011 ASHRAE RESEARCH

#### Florida West Coast Chapter

#### Contribution Form:

This industry gives all of us our livelihood. ASHRAE's research and educational programs are what keeps our industry and profession on the leading edge and assures its continued existence. Confident that you will recognize the benefits of this investment, I am asking you to help fund future HVAC&R research and development.

Together, we can all make a difference!

Amount enclosed: \_\_\_ \$250 \_\_\_ \$150 \_\_\_ \$100 \_\_\_ \$50 \_\_\_ Other (specify) \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Member Number (If known): \_\_\_\_\_

Mail completed form with your check, payable to ASHRAE Research to:  
 Philippe Jean, Stan Weaver and Company  
 4607 North Cortez Avenue, Tampa, FL 33614

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# Research Promotion

Hello Florida West Coast Chapter,

As of November 31, the Florida West Coast Chapter has collected over \$ 3,800.00, please be sure to recognize those investors that are listed in this newsletter.

The Florida West Coast Chapter is a major supporting chapter in Region XII's collecting efforts; our next goal is to reach 30% by 15 December 2011. We are more than half way there, please support ASHRAE Research.

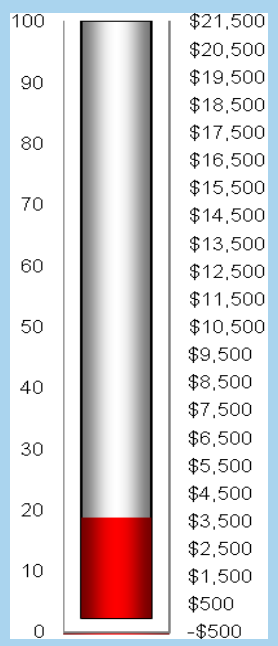
If you have not yet donated this year, please consider making your tax deductible donation this month for 2011!!!

Please make your contributions early this year either by check 'Payable to ASHRAE Research' and turn them in to me or if you prefer you can make online donations at [https://www.ashrae.org/aboutus/resource\\_promotion.asp](https://www.ashrae.org/aboutus/resource_promotion.asp) . If you have questions please let us help, contact Philippe Jean at 813-879-0383.

If you make a donation online, please forward me a copy of the emailed invoice so I can ensure that proper credit is given at [pjean@stanweaver.com](mailto:pjean@stanweaver.com).

As of November 31, 2011, we are at 18 % of our goal; remember if you make your tax deductible before December 31, 2011 you can use it on this year's tax return. Please contact me at [pjean@stanweaver.com](mailto:pjean@stanweaver.com) for your receipt for tax purposes.

**Philippe Jean, PE, LEED AP**  
**Research Promotion Chair (2011-2012)**



# ASHRAE FWC Sponsors

## Research Promotion and Florida West Coast Chapter 2011 Corporate and Individual Sponsors

**Bronze:**

Florida West Coast Chapter

**Honor Roll:**

- Consulting Engineering Associates
- Ossi Consultant Engineering
- Aqua Air Products
- Original Solutions Company

**Individual Investors:**

- |                      |                         |
|----------------------|-------------------------|
| Malia Powers         | Heather Tank, P.E.      |
| Joe Souza            | Shawn Jeffrey           |
| Jason Proctor        | Raoul Webb, P.E         |
| Joe Cox              | Jeffrey Ross            |
| Phillippe Jean, P.E. | Dan Rogers, P.E.        |
| Mike Costello        | Jeff Littleton          |
| Thomas H. Williams   | Jennifer Isenbeck, P.E. |

## Free Dinner from Membership Promotion

The economy has hit everyone hard and many tough choices had to be made, but it seems things may be slowly turning around. FWC is making a push to expand our membership, and I hope that you find your membership in ASHRAE sufficiently beneficial to recommend our society to your business associates. ASHRAE membership, and the networking opportunities that ASHRAE membership provides, will become even more important as business activity escalates, and I hope that you will help us expand our membership by inviting your business associates to attend our meetings. To this end, the Chapter is challenging our members to bring a guest to our upcoming meetings. To show our appreciation, we will provide a complimentary dinner for any member that brings a guest to a meeting, and that person subsequently joins ASHRAE.

The membership committee will provide a form located at the check-in table for you to document your prospective member's visit, and a free meeting pass will be awarded to the member who initially brought the person to an ASHRAE- FWC meeting once their guest joins Society. It's just that simple... bring a new member and eat free! Please be sure to document your visitors to ensure that you are awarded credit for the new member.

**Joe Souza, Membership Promotion Chair (2011-2012)**

## The "Master's or Equivalent" Movement

Five years ago, the National Council of Examiners for Engineering and Surveying (NCEES) adopted a model "masters or equivalent" (MOE) law that, if adopted by state engineering licensure bodies, would require all individuals seeking professional engineer licensure in 2015 and thereafter to hold a master's degree. Because additional educational requirements (and expense) to pursue PE licensure have never been demonstrated to enhance the health, safety, and welfare of the public and will, in fact, choke off the pipeline of emerging engineering professionals by discouraging their pursuit of professional licensure, ASHRAE, working in coalition with a vast array of other engineering and technical societies, is working to push back against such regulation wherever it may crop up.

Although no state has yet adopted the model law, ASHRAE knows of a handful of states – notably, Illinois and Maryland – are considering putting these provisions into place. In Illinois, for example, the [Structural Engineering Board](#) is looking at implementing MOE, but that could be a precursor of things to come for other state boards – like the [State Board of Professional Engineers](#). In Maryland, the Free State's [State Board for Professional Engineers](#) is also said to be seriously examining adoption of the NCEES model law. ASHRAE has also heard rumblings of activity in [Georgia](#), [New Jersey](#), and [Rhode Island](#).

ASHRAE Government Affairs staff is asking you, as advocacy-minded members, to be on the lookout for related developments in your state by following the below steps:

- Look up your state's licensure board via [the NCEES website](http://ncees.org/Licensing_boards.php). ([http://ncees.org/Licensing\\_boards.php](http://ncees.org/Licensing_boards.php))
- If available, subscribe to electronic or hard-copy updates of board activities.
- Scan the composition of your respective board for names you know and with whom you might discuss master's or equivalent-related issues – there might even be ASHRAE members serving on those licensing bodies.
- Review materials available – including talking points – at [LicensingThatWorks.org](http://LicensingThatWorks.org), the Website of the aforementioned coalition.
- Coordinate any communication through your local ASHRAE chapter as to not work at cross purposes with your colleagues.
- Notify [ASHRAE's Government Affairs staff](#) as soon as possible.

If you have any questions, please contact [ASHRAE's Government Affairs office](#).

## Energy and Water Funding Bills Stall in Senate

Earlier this week the Senate came close to passing the Energy & Water Appropriations Bill for Fiscal Year 2012, however the effort was abandoned following a failed attempt by Senate leadership to add on the Financial Services and State-Foreign Operations Appropriations Bills to create a three-bill spending package. There is no word yet on when the Senate might resume debate on the Energy & Water bill. With the November 23 deadline for the super committee to produce legislation that reduces the budget deficit by at least \$1.2 trillion over ten years fast approaching, however, and focus now on passage of a major annual defense bill, the Senate may not return to the Energy & Water bill until late December or early January.

The High-Performance Building Congressional Caucus Coalition, which ASHRAE chairs, recently sent a sign-on letter to the Senate encouraging support for the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), and the U.S. Energy Information Administration (EIA).

EERE administers programs such as the Building Energy Codes Program, State Energy Program, and Weatherization Assistance Program. EIA administers programs such as the Commercial Buildings Energy Consumption Survey (CBECS).

The House and Senate recently passed another continuing resolution (CR) that funds the federal government through December 16 as part of a larger spending package for combining the Agriculture, Commerce/Justice/Science, and Transportation/Housing and Urban Development funding bills. Congress will need to either pass the remaining nine funding bills or pass another CR by December 16 or face a partial federal government shutdown.

House leaders have indicated that they may seek to pass the nine bills as part of a single package, rather than passing another CR in December, however this is not certain. Major decisions affecting the rest of the 2012 fiscal year will likely be announced in the next three or four weeks.

## Senate Considers Annual Defense Authorization Act

The National Defense Authorization Act (NDAA) is an annual bill authorizing funding for the U.S. Department of Defense (DoD), including military construction and renovation. The House passed version of the NDAA includes a requirement for DoD to conduct an analysis on the construction of DoD facilities, comparing of ANSI/ASHRAE/USGBC/IES Standard 189.1 Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings, and ANSI/ASHRAE/IES Standard 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings. The Senate version of the NDAA does not include this requirement.

ASHRAE has been working with the House and Senate Armed Services Committees to improve the House language and include these changes in the final bill.

## HPBCCC Holds Capitol Hill Briefing

Earlier this week the High-Performance Building Congressional Caucus Coalition (HPBCCC) held a briefing on Capitol Hill for Congressional staff, Members of Congress, building industry stakeholders, and the general public examining the building energy efficiency programs of New York City, Chicago, and Washington, DC. The goal of this briefing was to provide attendees with information on the policy levers and lessons learned that have helped these cities overcome historic barriers and achieve significant progress in building efficiency.

Speakers at this briefing included the following:

- New York City: Laurie Kerr, New York City Mayor's Office of Long Term Planning & Sustainability
- Chicago, Illinois: Daniel A. Seligman, Rebuilding America
- Washington, DC: Cliff Majersik, Institute for Market Transformation



## ASHRAE Awards

ASHRAE's Honors and Awards Program recognizes the dedicated ASHRAE members who give freely of their time and expertise to fulfill the Society's mission of advancing the arts and sciences of HVAC&R to serve humanity and promote a sustainable world.

Any successful organization has a way of rewarding those who contribute to its mission in a meaningful manner – so it is with ASHRAE. Our award recipients exemplify the best in engineering and engineering technology by continually bringing credit to the profession and the Society.

ASHRAE is proud of the many contributions its men and women have made on behalf of the Society and to our industry. We encourage you to help us recognize those members who deserve to be thanked by nominating them for an appropriate award.

Please contact me if you would have any questions or would like to learn more.

**Malia Powers**  
**TEGA Chair (2011-2012)**

## HUD Seeks Comments on Proposed Energy Audit

The U.S. Department of Housing and Urban Development (HUD) is seeking comments from interested stakeholders on a proposed new rule that would revise HUD's energy audit requirements for the Department's public housing program.

For additional information on this matter, please visit <http://1.usa.gov/u1jsH9>

(<http://www.gpo.gov/fdsys/pkg/FR-2011-11-17/pdf/2011-29640.pdf>)

## ASHRAE Technology Awards

Designers of systems for a university building, a cancer center, an ice rink and other commercial building are recognized by ASHRAE for incorporating elements of innovative building design.

The ASHRAE Technology Awards recognize outstanding achievements by members who have successfully applied innovative building design. Their designs incorporate ASHRAE standards for effective energy management and indoor air quality. The awards communicate innovative systems design to other ASHRAE members and highlight technological achievements of ASHRAE to others around the world. Winning projects are selected from entries earning regional awards.

“Every year, the judging panel looks forward to the reviewing the outstanding projects submitting by our membership,” Nathan Hart, chair of the judging panel said. “Being a consulting engineer myself, I appreciate the effort involved in submitting an entry to Society-level competition. I enjoy seeing what fellow ASHRAE members are doing to strive for more energy efficient, well ventilated maintenance friendly building designs. Many of the entries this year incorporated innovations and technologies that took advantage of their specific geographical locations to provide more energy efficient systems—helping to highlight that one size does not fit all and that a more energy efficient design solution may be available when considering the project as a whole.”

Following are summaries of some of the winning projects.

**Article Continued on Next Page . . . .**

## ASHRAE Technology Awards (Cont.)

### Mountain Equipment Co-op

Roland Charneau, P.Eng., ASHRAE Fellow, ASHRAE Certified Healthcare Facility Design Professional, Pageau Morel & Associates, Montreal, Quebec, Canada, receives first place in the new commercial buildings category for the Mountain Equipment Co-op store, Longueuil, Quebec, Canada. The building is owned by the Mountain Equipment Co-op. The Mountain Equipment Co-op store, a 2,600 sq. ft. single story retail sporting goods outlet, was designed and built so as to have a minimal impact on the environment. Traditionally, artificial lighting contributes to a large part of the total energy consumption in commercial retail stores. It was thus decided to maximize day lighting through a series of clerestory with a saw tooth shape roof. Also, light sensors were integrated in the design to partially or completely shut down the artificial lighting when natural lighting is sufficient. Occupancy sensors were integrated in small spaces to completely shut off lighting when not in use.

Optimization of the envelope resulted in an envelope insulated near twice the recommendations of the Model National Energy Code for Buildings, thus reducing the overall energy needs for the building. Structural Insulated Panels (SIP) were used for their efficiency, tightness and minimal construction time. Energy simulations showed a measured annual energy saving of 54 percent and cost savings of 57 percent.

Taking into consideration new, unpacked products that retail stores carry—which bring pollutants into the occupied zone—and racking which impedes good air distribution if supplied from the ceiling, air is supplied via underground air distribution with displacement ventilation diffusers at floor level. Additionally, the building utilizes active solid thermal energy storage in its concrete slab; an underground cistern to collect rain water and to feed the water closet, as well as waterless urinals; and natural/hybrid ventilation with leeward vents at roof level, to name just a few innovations. Overall, the new store consumes 57 percent less than the recommendations provided by the Canadian Energy Model Code.

### IKEA Brossard Distribution Center

Ken Sonmor, Ecovision Consulting, Montreal, Quebec, Canada, receives first place in the existing commercial buildings category for the IKEA Brossard Distribution Center, Quebec, Canada. The building is owned by the IKEA Distribution Services, CA LP.

The extensive distribution center (79,750 sq. m.) belonging to one of the largest furniture retailers in the world consists of a warehouse, where goods are received, stored and then shipped, along with adjoining office spaces.

On the lighting front, nearly 700 T12 high output (HO) lighting fixtures were replaced with a combination of T8 and T5 HO lights. An additional 510 high-intensity discharge fixtures were replaced with T5 HO fixtures with custom made reflectors to bring the light where needed. Motion sensors were installed throughout the entire facility shedding 250kW of lighting power. Luminosity sensors near windows in the office areas turn off lighting when not required thus harvesting daylight.

A 160T geothermal system is now the principal source of heat for the building. To attain the greatest possible efficiency, a dual maglev frictionless compressor heat pump was chosen. A greater number of wells than average maintain a very close approach with the ground temperature of 50 F. This higher temperature permits the reduction of glycol concentration which benefits the efficiency of the heat pump, the heat transfer through the vertical geothermal wells and lower pumping power. These improvements allow for a coefficient of performance of 5-7 in heating—representing a 50 percent improvement over a traditional geothermal layout. During a typical winter, the geothermal system is capable of supplying 70 percent of required heat.

The overall project thus provides greater human comfort, with never-before cooling in the warehouse while realizing greater than 50 percent dollar energy savings.

**Article Continued on Next Page. . . .**

## ASHRAE Technology Awards (Cont.)

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### Université de Sherbrooke

René Dansereau, Dessau, Longueuil, Quebec, Canada, receives first place in the educational facilities category for the design of the Université de Sherbrooke—Campus de Longueuil, Quebec, Canada. The building is owned by the Université de Sherbrooke.

With its 16-story glass tower built in the heart of Longueuil's downtown area, the Université de Sherbrooke's new campus building is one of the tallest structures on Montreal's South Shore. The 650,000 sq. ft. campus includes classrooms, offices and labs for nine faculties under a single roof. Its architectural design focuses on open spaces and gathering areas, such as a green roof "oasis," to enhance a sense of community within the campus.

Determined to create an eco-friendly building, Dansereau and his firm took a unique approach to engineer the heating, ventilation, and air-conditioning systems: Right from the start, designers chose an integrated design approach to the project. Though geothermal energy is rarely used in urban settings, designers connected a chiller to a geothermal system consisting of 37 vertical boreholes. The 165-ton screw chiller acts essentially like a heat pump and provides about 25 percent of the building's heating and cooling capacity.

With average winter temperatures falling significantly below freezing in the Montreal area, fresh air treatment can be quite costly. To enhance energy savings, three enthalpy wheels were installed on new ventilation units. These wheels recover latent and sensible heat that is usually lost in exhaust air. With an efficiency rate of 76 percent, the wheels help reduce annual heating, cooling and humidity demands.

Along with several other energy efficient innovations, energy consumption was reduced by 46 percent, consequently saving over \$250,000 a year on energy invoices. Including subsidies, the return on investment for energy-saving equipment is approximately two and a half years.

### Thermal Energy Corporation—Thermal Energy Storage

Blake Ellis, P.E., Burns & McDonnell, Kansas City, Mo., receives first place in the new industrial facilities or processes category for Thermal Energy Storage at the Texas Medical Center, Houston, Texas. The owner is Thermal Energy Corporation, Houston, Texas.

In 2007, master planning determined that the cooling load of the 80,000 ton chilled water system that served the Texas Medical Center would double over the next two decades. With that in mind, the owner sought the most cost effective way to provide the increased quantity of chilled water to the campus while maintaining the high level of reliability to serve the critical needs of the medical center.

It was determined that thermal energy storage (TES) in a load leveling scheme was the most cost effective first step to meet the increased chilled water demand. This resulted in the selection of an 8.8 million gallon stratified chilled water storage tank; with a height of 150 ft., it is the tallest stratified chilled water storage tank in the world. Connecting such a tall tank that is open to the atmosphere to a closed chilled water system creates 65 psig of pressure at the bottom of the tank on both the chilled water supply and return lines connected to the tank. A traditional single direction pumping scheme could no longer be utilized and a unique simultaneous dual direction pumping scheme was created.

Conventional wisdom would indicate that a TES system uses more energy than an equivalent non-TES system. However, TES systems use slightly less energy (BTUs or kW-hr) by shifting chilled water production from the middle of the afternoon when the highest wet-bulb temperatures of the day are experienced to the evening when wet-bulb temperatures are lower. The lower wet-bulb temperatures yield lower condenser water temperatures, which allow the chillers to operate more efficiently during the night hours when the tank is charged.

Energy savings during the first year were 7-9 percent in the summer and approximately 5 percent aggregated over the entire year. Energy costs were dramatically reduced due to the real time pricing in Houston, Texas. During the first 23 days of August 2011, the owner saved over \$500,000 in electrical energy cost due to very high (\$3,000+/MW-hr) electric costs.

If you have a project that you want to register for an ASHRAE Technology award, please contact FWC Refrigeration Chair, Debie Horsey at [dhorsey@carrollair.com](mailto:dhorsey@carrollair.com).



**Past Presidents**

- |                                  |                             |
|----------------------------------|-----------------------------|
| 1957-58 Karl K. Hickman          | 1984-85 Charles E. Langbein |
| 1958-59 Sam F. Graziano          | 1985-86 Thomas H. Williams  |
| 1959-60 Julian Johnson           | 1986-87 Caire A. Boe        |
| 1960-61 Ken Whittington          | 1987-88 Frank Grandinetti   |
| 1961-62 Mark E. Mooney           | 1988-89 Carl B. Lawson      |
| 1962-63 James A. Hargan          | 1989-90 Robert M. Little    |
| 1963-64 Daniel R. Manrique       | 1990-91 Edward C. Spivey    |
| 1964-65 E. J. Bauerlien          | 1991-92 Robert P. Sutton    |
| 1965-66 Henry Graham             | 1992-93 Roger B. Redman     |
| 1966-67 Richard Kohle            | 1993-94 Stephen Chittenden  |
| 1967-68 Lamar King/Leland Menard | 1994-95 William M. Slade    |
| 1968-69 Ed Fuller                | 1995-96 Juan A. Soler       |
| 1969-70 William A. Smith         | 1996-97 Timothy J. Citek    |
| 1970-71 Fared T. Ossi            | 1997-98 Mark Smith          |
| 1971-72 Lee Bendall              | 1998-99 Joseph Griner, III  |
| 1972-73 John Degian              | 1999-00 Colleen Smith       |
| 1973-74 Mark Chambers            | 2000-01 John W. Wells, III  |
| 1974-75 Charles "Stan" Weaver    | 2001-02 Gary Stenlund       |
| 1975-76 Charles D. Jacobs        | 2002-03 Bill Wright         |
| 1976-77 Peter Scott              | 2003-04 Don Crosby          |
| 1977-78 Ray Rinke                | 2004-05 Ted S. Hansen, Sr.  |
| 1978-79 Lloyd H. Biossoneault    | 2005-2006 P.J. Crespo       |
| 1979-80 James H. Carroll, Jr.    | 2006-2007 Dan Herrera       |
| 1980-81 S. Michael Tappouni      | 2007-2008 Jennifer Isenbeck |
| 1981-82 Alberto J. Sanchez       | 2008-2009 Debie Horsey      |
| 1982-83 James L. Repp            | 2009-2010 Drew Elsberry     |
| 1983-84 Rodney C. Thomas         | 2010-2011 Jeff Ross         |



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**2011-2012 Florida West Coast Schedule of Events**

**September 20, 2011 - 6:30-8:30 pm**  
Main Meeting at the Columbia Restaurant  
CRC/Regional Awards & Recognition  
\*Membership Promotion Night  
Speaker: Alton Holt (CMR Technologies)  
New Technologies in IAQ and Microbial Control

**October 18, 2011 - 6:30-8:30 pm**  
Main Meeting at the Columbia Restaurant  
Updates to FWC Website  
\*Joint Meeting with USGBC  
Speaker: Peter Hansen (Enervex)  
Demand Controlled Venting

**November 4, 2011 - 1:00-6:30 pm**  
2nd Annual Florida West Coast Clay Shoot  
Tournament  
Fish Hawk Clays, Lithia  
\*Research Promotion Event

**November 15, 2011 - 6:30-8:30 pm**  
Main Meeting at the Columbia Restaurant  
\*Research Promotion Recognition Night  
Speaker: Mike Lawler (Data Aire)  
Keys to Efficiently Designed Data Centers

**December 13, 2011 - 11:30 am - 1:30 pm**  
Lunch Meeting at the Columbia Restaurant  
Speaker: Jay Egg (Egg Geothermal)  
Geothermal Applications

**January 17, 2012 - 6:30-8:30 pm**  
Main Meeting at the Columbia Restaurant  
\*Membership Promotion Night  
Speaker: Vibro Acoustics  
Noise and Vibration Control

**February 7, 2012 - 6:10 pm**  
Tampa Bay Lightning vs. Los Angeles Kings  
St. Pete Times Forum Ice Plant & Modifications Tour  
\*YEA Night/Refrigeration Event

**February 17, 2012 - 11:30 am - 6:30 pm**  
Annual Florida West Coast Golf Tournament  
Eagles Golf Club

**March 28, 2012 - 6:30-8:30 pm**  
Main Meeting at the Columbia Restaurant  
\*Refrigeration Night  
Roundtable Discussion: Variable Refrigeration Flow  
Applications

**April 13, 2012 - 5:30-10:00 pm**  
Annual Florida West Coast Shrimp Boil  
Davis Islands Garden Club  
\*Research Promotion Night

**May 15, 2012 - 6:30-8:30 pm**  
Main Meeting at the Columbia Restaurant  
\*Past Presidents' Night/Joint Meeting with Sarasota Section  
Speaker: Ron Jamagin (ASHRAE President)  
ASHRAE's Journey to Sustainability



**Board Members, Committee Chairs and Contact Info:**

<b>Shawn Jeffrey</b> President 813-731-1062	<b>Jason Proctor</b> Pres. Elect/Programs 813-250-0488	<b>Philippe Jean</b> V.P./Research Promotion 813-541-3516	<b>Joe Souza</b> Membership 813-309-2155	<b>Joe Cox</b> Treasurer 813-763-9654	<b>Mike Costello</b> Secretary/Student 813-300-4662
<b>Leon Boe</b> YEA Chair/Governor 813-879-2749	<b>Dan Herrera</b> Historian 813-839-0506	<b>Ike Crimm</b> Governor/ Golf Event 813-758-2749	<b>Debie Horsey</b> Refrigeration 813-748-9406	<b>Malia Powers</b> Government Affairs 813-220-0588	<b>Michael Cowles</b> Newsletter/Governor 813-241-6488
<b>Jeff Ross</b> Nominating/Governor 813-250-0488	<b>Technical Energy</b> Joe Souza 813-309-2155	<b>Jacob Moberg</b> Reception 813-448-0225	<b>LAIR Services</b> Cyber Chair 813-404-2955	<b>Eric Viera</b> Chapter Roster 813-448-0225	<b>Could Be You?</b> Publicity ???



# ASHRAE FLORIDA WEST COAST CHAPTER

DECEMBER 13, 2011

MR. JAY EGG

COLUMBIA RESTAURANT, YBOR CITY

**LUNCH MEETING STARTS PROMPTLY AT NOON**

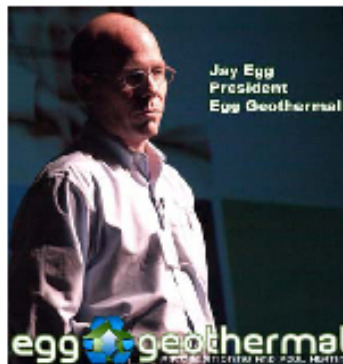
The Florida West Coast Chapter of ASHRAE is proud to have Mr. Jay Egg from Egg Geothermal Systems to speak to our chapter about:

## Geothermal Applications

Founder of Egg Systems, a mechanical services company focused on geothermal consulting, engineering, and contracting technologies. The company works internationally and is a sought-after and regularly retained for their expertise in the field of mechanical design, hydronic, and ground coupled air conditioning and heating. Jay and his team have written numerous articles, abstracts and papers on the topic.

Author of the McGraw-Hill Professional book; Geothermal HVAC, Green Heating and Cooling, to date the most comprehensive text on the subject of geothermal heating and air conditioning technologies.

Jay thought he had discovered Geothermal Air Conditioning during a repair to his own home air conditioning system on Labor Day weekend in 1989. As he explored the opportunities, he found that there were others that shared his vision. Oklahoma State University under the direction of Dr. Jim Bose had commissioned the International Ground Source Heat pump Association (IGSHPA). Jay traveled there to become certified as a designer and installer of geothermal exchange systems. He started Egg Systems in 1990 to provide energy efficient geothermal air conditioning systems to the Florida, and especially the Tampa Bay markets. Jay did very well with the technology, being featured on several network affiliated news stations and featured in many newspapers and magazines and enjoying opportunities to train and speak.



### CEUs will be provided for this meeting !

Please RSVP on the FWC website at: [http://www.ashrae-fwc.org/chapter\\_meetings.htm](http://www.ashrae-fwc.org/chapter_meetings.htm)

Cost: \$35 thru

Paypal or \$40 day of (It is still \$40 day of even if you RSVP but do not pay thru Paypal)



Email me with questions at [JProctor@sladerossinc.com](mailto:JProctor@sladerossinc.com)  
(813)250-0488

Jason Proctor  
FWC Programs Chair

#### Meeting Schedule:

Registration: 11:30am — 12:00pm  
Main Meeting: 12:00pm — 1:00pm

Columbia Restaurant  
2117 East 7th Avenue  
Ybor City, Florida 33605



Florida West Coast  
CHAPTER



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