



**THE AMERICAN SOCIETY OF  
MECHANICAL ENGINEERS®**

Central Oklahoma Section Newsletter  
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The Section is located at: Oklahoma Engineering Center, 220 Northeast 28<sup>th</sup> Street, Oklahoma City, OK 73105

The Central Oklahoma Section Newsletter is nominally published nine times per year to convey monthly meeting dates, meeting topics, section activities, and/or other ASME information to its membership.

**PROGRAM: “Emerging Energy Sources and Technologies”**

**SPEAKER:** Phil Crissup, P.E., Vice-President, OG+E

**DATE:** Thursday, Dec. 10, 2015

**LOCATION:** Okla. Engineering Center  
220 NE 28<sup>th</sup> St, Room 145, OKC, OK



Mr. Crissup will present an overview of OG+E’s many alternative energy programs and emerging technologies. Included will be wind power, solar power, and wireless metering systems. In addition, more traditional subjects will be discussed such as recent coal-fired power plant upgrades and advances in power transmission and distribution.

**Please join us on December 10 for this meeting. Attendees will receive 1-PDH Continuing Education credit!**

**Help create a better energy future by enrolling in OG&E Wind Power!**

**Here's how it works**

To help create a cleaner energy future, sign up for OG&E Wind Power. We offer three different use levels of wind power RECs which you will be billed at your selected level for 12 months.

Just choose the amount of your power that you would like to receive through wind power.

Approximate costs are based on your 12-month rolling energy usage average. This number will change if your usage changes.



**Level A**  
25%



**Level B**  
50%



**Level C**  
100%

<p><b>Time:</b> 5:30PM Meet &amp; Register at the Okla. Engr. Center 6:30-6:45PM: Introductions and Section Business</p>	<p>6:00 – 6:30PM: Sandwich Meal 6:45 – 8:00PM: Program by Phil Crissup</p>
<p><b>Cost:</b> <b>\$10.00 for Sr. members, \$5 for Student Members.</b> Please place your reservation with Albert Janco (Ph: 405-848-1991 (leave message); e-mail: <a href="mailto:JANCOA@asme.org">JANCOA@asme.org</a>) by 5:00PM on Tuesday, December 8. PLEASE furnish the name of each person attending and their affiliation (ASME, etc). If a student, please indicate school/university. If a P.E. please indicate if a PDH certificate is desired.</p>	

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## **ADDITIONAL NOVEMBER-DECEMBER MEETING INFORMATION**

Phil Crissup received the Bachelor of Science in Electrical Engineering with an emphasis on Power Systems Analysis from the University of Oklahoma in 1983. After graduation, he joined the Oklahoma Gas and Electric Company as a Distribution Engineer in Enid, Oklahoma. Over his thirty-two year career, he has held numerous engineering and management positions within OG&E including Distribution Engineering, the System Laboratory, Transmission Design, Transmission Planning and Transmission Policy.

He currently holds the title of Vice-President of Utility Technical Support. His responsibilities include Transmission, Substation and Protection Engineering, Asset Management & Project Management and Execution for OG&E Transmission, Substation and Generation projects and Environmental Assurance activities. He is a Licensed Engineer in Oklahoma and Arkansas.

Mr. Crissup is married, has four children, two grandchildren and resides in Yukon, Oklahoma.

[OGE Energy Corp. has been a part of Oklahoma's growth for more than 100 years, from the days of pioneers plowing prairies to the era of creating new energy technology.](#)

### **OG+E Highlights Include:**

- 1902 – On February 27, 1902, five years before Oklahoma becomes a state, Edward H. Cooke registers incorporation papers for Oklahoma Gas & Electric Company.
- 1949 – OG&E becomes the first company to use gas turbines combined with steam turbines to generate electricity, creating more efficient power plants.
- 1959 – An OG&E employee finds single-phase electricity to be more economical than 3-phase, allowing electricity into rural areas once too far from power plants.
- 1963 – OG&E builds the world's largest combined-cycle power plant (235 MW) at Horseshoe Lake Station, more than tripling the power generated by other plants.
- 1974 – OG&E announces plans to build coal-fired generation plants. Coal burning produced about half of the electricity generated in the U.S. at the time.
- 2003 - OG&E is the first electric utility in Oklahoma to offer wind power as a choice for its retail customers.
- 2007 - OG&E dedicates its Centennial Wind Farm near Fort Supply, more than tripling the company's production of wind energy. This is the first wind farm to be wholly owned and operated by a utility.
- 2008 - OG&E begins a research and development project to test wireless, "smart" technology with residents in two areas of northwest Oklahoma City. OG&E's Positive Energy® Smart Grid program enables customers to better manage their energy consumption and control costs.
- 2011 - OG&E named Utility of the Year by Electric Light & Power magazine.
- 2012 - Completion of the Crossroads Wind Farm allows OG&E to meet approximately 10 percent of its customers' energy requirements with wind generation.
- 2013 - OG&E's Cowboy Wind Farm provides wind energy as the main source of electricity for the Oklahoma State University Stillwater campus.
- 2013 - CenterPoint Energy, OGE Energy Corp. and ArcLight Capital combine assets to form Enable Midstream Partners, LP.
- 2013 - OG&E wins the Edison Electric Institute's (EEI) Edison Award, the industry's top honor.
- 2014 - Oklahoma City Thunder becomes the first team in the NBA to offset 100 percent of its electricity consumption with renewable wind power, following a 5-year agreement with OG&E.



## **Upcoming Events Sponsored by Oklahoma City Society of Women Engineers**



Below is a list of upcoming events which the SWE OKC Section have invited all to attend, non-members as well as SWE members:

- NOVEMBER: Nationals Recap and 2016 Spring Planning \*Kid Friendly Event  
Monday, November 16th, 2015 5:30PM - 7PM  
Fassler Hall 421 NW 10th St / Oklahoma City, OK 73103  
Mark your calendar and bring your ideas for 2016! We will be hearing about the National Conference and will then plan the events for Spring 2016. Please RSVP to [swe.okc@gmail.com](mailto:swe.okc@gmail.com) by Friday, November 13th at 4PM! \*This is a child friendly event but no child care will be provided. We will have an activity for the kids and will be talking about the new SWENext program.
- Sign up your daughter/niece/granddaughter/friend at: <http://societyofwomenengineers.swe.org/swenext>
- DECEMBER: Holiday Celebration at the Myriad Gardens \*Family Friendly Event  
Sunday, December 6th, 2015 4:30PM  
Meet at the Myriad Botanical Garden Entrance 301 W Reno Ave / Oklahoma City, OK 73102  
We will tour the Myriad Botanical Gardens and then plan to either ice skate or eat dinner together or BOTH!  
\*Please RSVP to [swe.okc@gmail.com](mailto:swe.okc@gmail.com) by Friday, December 4th at 4PM with number of people attending!
- Region i Conference: Boulder, CO - February 26-27, 2016  
The 2016 SWE Region i Conference will take place in Boulder, Colorado on February 26-27, 2016 and will be co-hosted by the SWE CU Boulder and SWE Rocky Mountain Sections. <http://www.swe-rms.org/icon16.html>
- Calendar of future SWE Conferences <http://societyofwomenengineers.swe.org/learning/conferences-and-events/3251-annual-conference>

### Other Events / Volunteer Opportunities

- First Robotics Competition  
Volunteer at the event or mentor a team <http://www.usfirst.org/roboticsprograms/frc>  
Oklahoma Regional, Cox Arena - SMG Convention Center, Oklahoma City, OK USA  
23-Mar - 26-Mar-2016

This and other information related to the Oklahoma City Section of the Society of Women Engineers can be found on their website, at: <http://okc.swe.org>.

## **Oklahoma State University Engineering College Addresses Homecoming Tragedy**

Below is the letter issued by Dr. Paul Tikalsky, Dean of the OSU Engineering College in response to the OSU Homecoming tragedy that occurred on October 24, 2015. Sadly, a number of engineering-community individuals were affected.



### **College of Engineering, Architecture and Technology**

Office of the Dean  
201 Advanced Technology Research Center  
Stillwater, Oklahoma 74078-5013  
Phone: 405-744-5140  
Email: [deantikalsky@okstate.edu](mailto:deantikalsky@okstate.edu)

Dear CEAT students, faculty, staff, alumni and friends,

The OSU/CEAT family is mourning and praying for victims of this weekend's Homecoming parade tragedy. Three members of the CEAT family were among the fatalities and three others are recovering from injuries sustained in the tragedy. Dr. Marvin Stone and his wife Bonnie, long-time beacons of OSU, died in the incident. They were examples of what makes OSU great. Nash Lucas, the 2 year old son of Niki Strauch, died from his injuries. Niki Strauch, a sophomore majoring in chemical engineering, was also injured in the incident.

Dr. Marvin Stone was an Emeritus Regents Professor who remained active in the Department of Biosystems & Agricultural Engineering and was honored for his innovations at a U.S. Congressional reception in D.C. earlier this year. His wife Bonnie was an extraordinary member of the Institutional Research and Information Management staff that helped us and others track data and improve our processes.

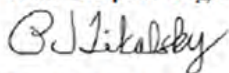
Niki is from Weatherford, OK and is recovering from injuries she suffered in the incident but she is mourning the loss of her two-year-old son. A [GoFundMe-Niki Strauch](#) account has been established to help her with her son's funeral arrangements.

Diana Rodriguez, a graduate student in Industrial Engineering, was severely injured while protecting her child in the Homecoming Parade incident. Diana remains in critical condition after multiple surgeries this weekend. Steven Edwards, the father of Kelly Edwards, Architecture Student in CEAT, was also hospitalized with injuries in the parade tragedy.

Many others in CEAT and at OSU have been deeply impacted by the senseless act at the Homecoming Parade. Julie and I are praying for the recovery of all the victims of the tragedy and we extend our deepest sympathies to the families of those that died this weekend.

Please remind your students, colleagues, and family that OSU's Employee Assistance Program provider, ComPsych, will have counselors on site for employees and students starting Monday, October 26, on the third floor of the OSU Student Union, in Career Services. In addition, therapy dogs from Pete's Pet Posse will be on hand. Employees can also contact ComPsych by calling 855-850-2397 or online go to [www.guidanceresources.com](http://www.guidanceresources.com) to reach the website.

With Deepest Regards,



Paul J. Tikalsky, Dean

## **MEMBERS NOTE: The P.E. Exam Registration Date is December 1**

Please see below. Prospective P.E. please note December 1 as the cut-off date for P.E. exam registration. **This date will sneak up on you!** For more information go to the Oklahoma State Board of Registration for Professional Engineers and Land Surveyors web-site at <http://www.ok.gov/pels/>.

OKLAHOMA STATE BOARD OF  
LICENSURE FOR PROFESSIONAL  
ENGINEERS AND LAND SURVEYORS

OKLAHOMA

NCEES PE Examination(s) – April 15, 2016  
Application Deadline – December 1, 2015 (Jan. 1, 2016 deadline for winter graduates)

<i>April Exams Only</i>	<i>April &amp; October Exams</i>
Agricultural and Biological	Chemical
Architectural	Civil
Industrial	Electrical & Computer
Naval Architecture & Marine	Environmental
Software Engineering	Mechanical
	8 hr. Structural Component – Vertical Forces
	8 hr. Structural Component – Lateral Forces (Exam Date 4-16-2016)

NCEES PS Examination – April 15, 2016  
Application Deadline – December 1, 2015 (Jan. 1, 2016 deadline for winter graduates)

Oklahoma Law and Surveying (OLS - 2 hr) State Exam April 15, 2016 (contact the board office for additional dates and times.)

Fundamentals of Engineering (FE) & Fundamentals of Surveying (FS) are offered year-round by applying directly to NCEES and administered using Computer Based Testing. For more information or to Register for the Exam(s) Go to [ncees.org/exams/](http://ncees.org/exams/)

## **NEWS ITEMS OF INTEREST**

### **Networking: How to Make the Most of Professional Societies** (abridged for length)

An ASME *SmartBrief* publication citation, Nov. 6, 2015. Article by Alaina G. Levine from:

<http://blogs.nature.com/naturejobs/2015/11/05/networking-how-to-make-the-most-of-professional-societies/>

Although professionals may know about their own professional society, many people do not consider the wealth of career advancement, networking and self-promotion opportunities that they offer. Yes, they know about the conference and maybe they read the newsletter, **but there is so much more that you can experience from being a member or simply demonstrating your interest in membership.**

A professional society is typically a non-profit dedicated to advancing the profession and the professionals of a given discipline, field, industry or sector. (In fact, this is essentially the tagline of the American Statistical Association). **In science and engineering in particular, professional societies are often founded with the original intent of bringing together like-minded individuals to discuss topics of interest and potential collaborations, and to provide a collective voice for policy, advocacy and even funding concerns.** As they grow, these same societies strive to provide opportunities for professionals in the community to become involved in the governance of the societies as official, or paid, members.

Professional societies provide many direct and indirect benefits to scientists and engineers to advance their careers, including:

- Knowledge about hiring trends and issues;
- Publishing opportunities;

- Awards and honors for which you can apply, such as travel grants;
- Leadership experiences;
- Job boards and professional development services.

But the most important benefit that professional associations provide their members is extensive networking opportunities. **The first step to access these is to join the society and become an engaged member** (emphasis added). It is not enough to simply pay your dues. Take full advantage of the opportunities afforded by the organization – which, to be clear, exist because of and to serve YOU – you will want to interact with the leadership and staff, join committees, understand how the organization functions, participate in its activities (such as conferences and informal discussions), and generally be an active volunteer.

**Contact the organization: Let them know you are interested in becoming an engaged member:** Start by emailing the “Membership Coordinator” or “Director of Membership” and ask for a phone appointment. Inform them where you are in your career path (I am a grad student, postdoc, new faculty member, or am transitioning into a career in X) and that you are interested in learning more about becoming an “engaged member”, who is active in some way within the association. They will be more than happy to chat with you – after all, their job depends on building the membership. And as you chat, he/she will start to get ideas as to where you might be a good person to serve the organization, what committees are in need and what help you can provide.

**Volunteer: Look for opportunities to give back to the organization and establish yourself as a leader:** Volunteering for non-profit organizations within my own fields has given me access to numerous hidden career opportunities and helped me craft strategically important networks. Consider volunteering to serve on committees, write articles for the association’s newsletter, or work at the conference. Volunteers are the lifeblood of an organization and yet very few members take advantage of the opportunity.

**Seek leadership positions: Demonstrate that you care about the success of the organization and its members and want to make a positive contribution:** As you become more entrenched in the organization, pursue leadership opportunities. Serving in a leadership role in your professional association elevates your brand, attitude and reputation. It gives you a reason to reach out and connect with other members and additional society stakeholders, and it serves as a credential – the organization elected you to this position, so they perceive you as a leader.

**Seek career services: Discover who’s hiring, and how you can position yourself for success:** Not every association has a career services division. But for those that do, take full advantage of their offerings. A career center within a professional society often has job postings that may not be advertised elsewhere and its resume/CV “bank” is often perused surreptitiously by decision-makers looking for people they wish to invite to apply for open positions. So post your resume on the job board, and join and contribute to list-servs reserved for career-related discussions. Attend professional development webinars and workshops.

Becoming active in your association(s) is a critical component to professional triumph and at different points in your career, you will have to determine how much time you can realistically spend serving the organization versus producing the outputs associated with success in your field (such as publishing). You never want to sacrifice doing excellent science in the name of serving on a committee, so it will be up to you to figure out how best to manage your time and commitments. And of course this will ebb and flow as you advance in your career.

But no matter what vocation you choose and where you are in your profession, do ensure that your professional association serves as your strategic partner for success. Because, frankly, that’s what it is there to do.

### ***The Critical First Step for Great Leadership: The Journey from “I” to “We”*** (abridged for length)

An ASME *SmartBrief* publication citation, Oct. 20, 2015. Article by Terry St. Marie, October 18, 2015

from: <http://www.terrystarbucker.com/2015/10/18/critical-first-step-great-leadership-journey/>

There comes a time in a more human leadership journey where something radically changes. The focus of our effort makes a major progression forward that, once accomplished, propels us to greatness. If this progression is NOT made, we may be doomed to mediocrity or outright failure.

What is this progression? It can be summed up with simple little pronouns: **Great leaders need to progress from “I” to “We”** (emphasis added).

This happens when it stops being about *you* – personal ambition and ego take a back seat to the greater good, and the burning desire becomes the success AND welfare of the team.

I vividly remember making this jump, back in 2003 – it was not long after I'd been turned down for a big promotion to the executive suite. I'd been wanting this promotion for several years, and worked hard to position myself for it.

I wanted to really prove *myself*. It was *my* time. It was what *I* wanted. *I* was going to show everybody what a great leader *I* was (or better said, *thought I* was), and play a significant role in getting the company to the financial finish line, and the big payout. The chip on my shoulder was pretty darn big.

Getting passed over actually turned out to be a blessing for me, because my “consolation prize” was being assigned a field leadership role over 700 people (which would later grow to over 1,100).

All it took was a couple of road trips to change *everything*. I decided to go out to the field, and just listen and gather information. I'd schedule 8AM meetings with burnt coffee and stale donuts and ask a lot of questions. It was in those meetings that I began to feel less about my issues, my ambitions, and my problems, and more about their simple collective desire to have a good reason to get out of bed every morning and connect with something more meaningful.

***They (the employees) wanted to be respected and trusted*** (emphasis added).

And in looking into all of their eyes and hearing this over and over again, I felt a strong need to get them what they wanted. It wasn't my head leading me from “I” to “We” – it was my heart.

I felt like I was being called to lead a cause to bring us *all* to what I later realized was the “success trifecta” – a successful company, a happy team, and a fulfilled leader.

From then on, the “we” reigned. Because it just wasn't going to be great unless all of us got to the finish line, together. Luckily, we did, seven years later.

And by the way, the “I” doesn't disappear, nor should it – let's just say it becomes the second banana to a much stronger lead.

Lead well!

**EDITOR'S NOTE:** It's astonishing to me how many persons in management and/or supervisory roles fail to offer simple human respect to their subordinates. I understand trust must be earned but respect should be a given. The last statement, “the “I” doesn't disappear”, should serve as a warning to all technical professionals of our obligation to be professional, fair, humble, and thoughtful in our duties and human interactions each day.

### ***Can Green Roofs Bloom Into Cost Savings for Building Owners?*** (abridged for length)

An **ASME SmartBrief** publication citation, Oct. 19, 2015. Article by Kim Slowey, October 15, 2015 from:

<http://www.constructiondive.com/news/can-green-roofs-bloom-into-cost-savings-for-building-owners/407335/>

Green roofs seem to be sprouting up all over the place. In fact, some high profile green roof projects have been garnering major media attention lately. Facebook's new office building in Menlo Park, CA, features a nine-acre green roof with a walking path and more than 400 trees. A defunct Silicon Valley retail space, the Valco Shopping Mall in Cupertino, CA, is also in the news with its plans for a \$3 billion makeover, at the center of which is a 30-acre green roof — which will be the largest green roof in the world.



New York City Attorney John-Patrick Curran, who advises major developers on wide ranging environmental issues including regulations around green roofs, **notes that Washington DC has been using green roofs on public and commercial buildings for nearly a century.** "Some of the buildings have green roofs that haven't been replaced since the 1930s"

***Green roof elements:*** So what is a green roof exactly? **There are two basic types of green roofs — intensive and extensive.** An extensive green roof system uses low-lying plants, creates a light roof load and requires less maintenance than its high-profile counterpart, the intensive green roof, which can include trees, shrubs and heavier architectural features. Both types are most easily installed on flat roofs.



Once a standard roof is in place, up to the waterproof membrane, according to Michael Whitfield, owner of Green Roof Outfitters (GRO) in Charleston, SC, then the green roof installation can begin via a traditional or modular system. Traditional systems require an experienced installer to stack a drainage mat, root layer, soil, and, finally, the plants on the existing roof. Modular systems, however, like GRO's, come in self-contained trays, fully planted, and ready to place anywhere.

A modular system, Whitfield told Construction Dive, allows a faster, neater install and is much easier to remove in cases of redesign or if someone needs to get at the underlying roof structure for repairs; but either system will provide the benefits.

As for licensing or building codes, neither Curran nor Whitfield have encountered any special requirements for green roofs, since the structural elements are already in place before the green roof installation.

"There are no real specific codes associated with those things," Curran said, "other than, of course, the general need to have them not fly off the roof."

In addition, the extensive green roof—the most common version—Whitfield said, features low-profile plants installed in such a way that make them a permanent feature of the building, no more likely to get airborne during a storm than grass or plants on the ground.

**Growing popularity:** Aesthetics are obviously a big factor in deciding to install a green roof, but what else makes them so popular?

According to Whitfield, a green roof will last 200%-400% longer than a standard roof. And, Curran said, owners can see energy and stormwater control savings that pay for the cost of the roof in as little as five to six years.

Green roof buildings can generate energy cost savings of 25%-50%, according to Whitfield, and can reduce wear and tear on roof-placed equipment, which benefits from the cooling effect from the plants.

But the biggest payoffs are the tax and fee incentives that many cities, including Austin, TX, Baltimore, New York, Philadelphia, and Washington, offer because of a green roof's ability to control storm-water runoff. Whitfield said the average green roof absorbs 50%-65% of average rainfall in most places, and this can save a city millions in stormwater improvements.

"They have tax incentives that help pay for it," Whitfield said, "so that's why they do millions of square feet [of green roofs] in those cities."

**What's holding them back?** With all of these benefits, why aren't more building owners taking advantage of green roofs? Both Curran and Whitfield agreed that a lack of education about green roofs is preventing a wider implementation of the concept.

"It sounds to many like a headache," Curran said. "And I think there's been some negative information out there about the difficulty of maintaining, the cost of maintaining, and the cost of installing them."

As for cost, Whitfield said, a typical extensive green roof system, which makes up 80% or more of all green roofs, costs between \$12-\$20 per square foot, including installation.

The reality, though, Curran said, is that while green roofs might cost more initially, the cost savings from energy and tax incentives can minimize that extra expense.

Whitfield said the key to wider use is getting the real data about cost, maintenance, and green roofs' effect on storm-water runoff and energy consumption into the hands of the true decision makers—architects, landscape architects, engineers and municipal officials—so that green roofs can be more regularly included in building design.

Whitfield, however, would like people to learn about the intangibles that go hand-in-hand with a green roof as well.

"It increases worker productivity, and it's a quality of life issue for hospital patients. They might need less pain meds and get out of the hospital faster. There are all these other side benefits," he said. "Endangered bee and butterfly populations—this helps create habitat for them. There are just a lot of benefits people don't even think about."

### **Chair's Corner**

To those who were able to join us for last month's Curtis Vickery's discussion on current Corken pump designs – what an informative and educational meeting. In case you missed it, there will be another chance to see the newly remodeled Oklahoma Engineering Foundation [OEF] offices this December 10<sup>th</sup> when Phil Crissup, OG+E Vice President, will discuss new emerging energy sources, i.e. solar, wind, etc.

All ASME-Central Oklahoma Section members, SWE Section member, AIAA Section members, students, and guests are welcome to join us.

In addition I am asking all Central Oklahoma Section members for a favor. We are currently in the process of updating our online email address roster. When you send your reservation for this month's meeting (or provide this without RSVP ...) **would you please indicate if you wish to be on the e-mail newsletter mailing list or not as sent by this latest e-mailing.** If you wish to be included, please indicate your preference of email (or other means of contact) address. Thanks,

Tom Betzen, Chairperson, ASME Central Oklahoma Section

### **Future ASME-Central Oklahoma Section Events**

Date	Location	Program Topic and Speaker
Thursday Dec. 10, 2015	Okla. Engr. Center 220 NE 28th Street, OKC	Speaker: Mr. Phil Crissup, Vice-President, OG&E Corp. Topic: Emerging Energy Sources
Thursday Jan. 28, 2016	Okla. Engr. Center 220 NE 28th Street, OKC	Joint Meeting with Oklahoma AIAA Section Program TBD
Tuesday Febr. 23, 2016	TBD	OEF Engineering Fair
Thursday Febr. 25, 2016	Gaylord Student Center OC Campus, Edmond	Joint Engineering Societies Banquet Program TBD

**Please visit our Section website:**

[https://community.asme.org/central\\_oklahoma\\_section/default.aspx](https://community.asme.org/central_oklahoma_section/default.aspx)

**IT'S BEEN REVAMPED.** Check event updates and other useful information!