



On behalf of:

The **Delaware Valley Power Quality Group**, established in 1993, is a volunteer not-for-profit organization dedicated to providing a state of the art educational forum for the exchange of information pertaining to Power Quality issues and the most technically up to date products and practices.



Located East of US 1, South of Philadelphia city limits. Entrance is off N. Lynn Blvd. in Upper Darby, PA. [North of the intersection of US 1 (Township Line Rd.) and Rt. 3 (West Chester Pike)] Online directions: <http://www.mccallgolf.com/directions>

You are cordially invited to the  
Quarterly Meeting of the  
**Delaware Valley Power Quality Group**

to be held from 10:00 AM to 3:00 PM on  
**Tuesday, September 17, 2013** at

**PECO Energy McCall Field  
Conference Center  
N. Lynn Blvd.  
Upper Darby, PA**

Meeting Agenda:

**Power Quality Symptoms, Sources  
and Solutions**

Main Speaker:

**Dan Carnovale, P.E.  
Eaton Corporation**

**IT'S TIME TO RENEW YOUR DVPQG  
MEMBERSHIP FOR 2013. 3 YEAR  
RENEWAL IS THE BEST VALUE!**

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# Power Quality Symptoms, Sources and Solutions

## ***Program Description:***

*This presentation will cover the symptoms of Power Quality issues and discuss the sources of these problems so that solutions can be evaluated based on the economic and technical trade-offs of these solutions. Using rules of thumb and case studies, the presentation will discuss why some solutions will work and why some solutions may not be appropriate.*

- Voltage Sags/Interruptions
- Surge Protection
- Harmonics
- Power Factor Correction

*There is also a significant amount of mis-information in the industry related to energy savings attainable using Power Quality solutions. This presentation will help demystify the link between Power Quality and energy saving solutions including power factor and harmonic solutions.*

## **Speaker: Dan Carnovale, P.E., Eaton Corporation**

The presenter is Dan Carnovale, P.E. from Eaton Corporation who designed and manages a demonstration center in Pittsburgh called the Power Systems Experience Center (PSEC). ([www.eaton.com/experience](http://www.eaton.com/experience)). At the PSEC, visitors can see full scale demonstrations of Power Quality problems and solutions. With PQ instrumentation and visual learning, demonstrations come to life and very technical subjects become clear and understandable. Some of the information and training material used at the PSEC will supplement this training program.

### **Meeting Information:**

**Place:** PECO Energy McCall Field  
Conference Center  
N. Lynn Blvd.  
Upper Darby, PA

**Date:** Tuesday, Sept. 17, 2013  
**Time:** 10:00 to 3:00 PM

**Lunch Will Be Provided**  
**Please RSVP by Wed., Sept. 11, 2013**

## **REGISTRATION:**

**NAME:** \_\_\_\_\_

**COMPANY:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**PHONE:** (     ) \_\_\_\_\_

**(include area code)**

**FAX:** \_\_\_\_\_

**E-Mail:** \_\_\_\_\_

**Category:**  Academic  Contractor  Utility  
 Consultant  Manufacturer (Rep)  End User

**Registration Fee:** Check or Cash only

To become a 2013 member of the DVPQG and receive notification of all future meetings, training, and events, please select the appropriate option. Yearly membership runs from January 1 to December 31 of each year.

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|-----------------------------|-----------------------------------------|-----------------|
| 1. <input type="checkbox"/> | <b>Meeting – DVPQG Member</b>           | <b>\$ 35.00</b> |
| 2. <input type="checkbox"/> | <b>Meeting – Non-Member</b>             | <b>\$ 55.00</b> |
| 3. <input type="checkbox"/> | <b>Mtg. &amp; 2013 Membership</b>       | <b>\$ 60.00</b> |
| 4. <input type="checkbox"/> | <b>Meeting &amp; (3) yr. Membership</b> | <b>\$105.00</b> |
| 5. <input type="checkbox"/> | <b>2013 Membership Only</b>             | <b>\$ 30.00</b> |

**SEATING IS LIMITED!** Please pre-register...Registration at the door is **\$5.00** extra. (Cancellation and Refund: To cancel your registration and receive a full refund, you must contact DVPQG (i.e. email: [treasurer@dvpqg.org](mailto:treasurer@dvpqg.org) or call 717.252.4730) at least 24 hours prior to the meeting. Otherwise, no refunds will be issued.)

**Please mail this registration form and a check, made out to "Delaware Valley Power Quality Group, Inc.", for the appropriate registration to:**

Delaware Valley Power Quality Group, Inc.  
5410 Mt. Pisgah Rd.  
York, PA 17406

**Please respond by Sept. 11<sup>th</sup>, 2013**  
**Please be complete in filling out registration.**

You may also pre-register by E-mail to [registrations@dvpqg.org](mailto:registrations@dvpqg.org) and then mail your payment.