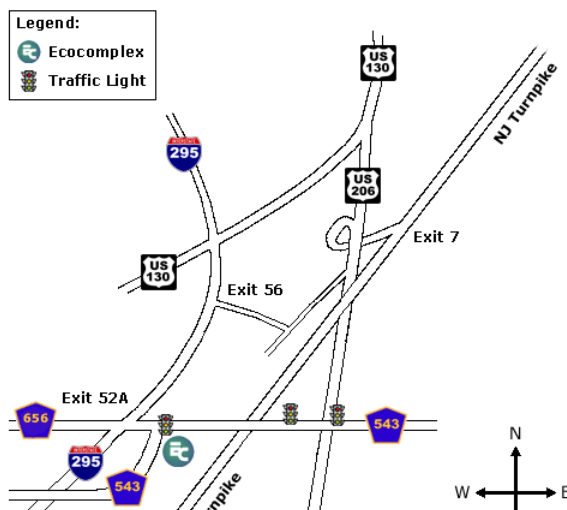




On behalf of:

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.



Directions

From NJ Turnpike – Take Exit 7 to Rte. 206S, 3.5 mi. to Columbus-Burlington Exit to Rte. 543 West for 2 mi. to EcoComplex on left.

From I-295 – Exit 52A to Rte. 543 East to EcoComplex on right.

From PA Turnpike -first exit in NJ to Rte. 130N, right at 1st light to Rte 656E for approx. 3 mi. (cross I-295), go through light to EcoComplex on right.

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
Wednesday, September 27th, 2017 at

Rutgers EcoComplex
1200 Florence-Columbus Road
Bordentown, NJ 08505

Meeting Agenda:

**EMP Protection of Control Centers
and Substation Control Houses**

**Presentation on GIC
(Geo-magnetically Induced Currents)**

Speakers:

Mr. Michael Caruso, Independent Consultant

Dr. Ramis S. Girgis, ABB

**IT'S TIME TO RENEW YOUR DVPOG
MEMBERSHIP FOR 2018. 3 YEAR
RENEWAL IS THE BEST VALUE!**



EMP Protection of Control Centers and Substation Control Houses

Program Description:

Resiliency of Critical Infrastructure Segments has become a growing concern and has become an especially high priority for electric utilities. The elevated consideration for resiliency across all segments has rapidly expanded to include the impacts of High Power Electromagnetics threats. This presentation will identify the EMP threat, the potential issues in current designs, the expected EMP impact on the critical components and equipment, mitigation opportunities for existing facilities and design recommendations for planned facilities.

Speaker: Michael Caruso, Independent Consultant

(see separate DVPQG Program Abstracts and Bios – September 27th, 2017 document)

Presentation on GIC (Geo-magnetically Induced Currents)

Program Description:

Over the years, significant Geo – Magnetic Disturbances (GMD) caused power system blackouts in North America and other regions around the world. These events had created a certain level of concern in the electric power industry about the implications of Geo – magnetically induced Currents (GIC) flowing into the neutrals of large power transformers. The presentation will cover the following topics:

- *How GIC currents are induced*
- *Effects of GIC currents on Power Transformers and Power systems*
- *Factors that influence the magnitude of the impact of GIC*
- *Methods to mitigate and protect against the effects of GIC*
- *Recent Industry Standards in this area*
- *Tools provided by ABB to assist Electric Utilities in North America comply with the requirements of the FERC order TPL – 007 – 1.*

Speaker: Dr. Ramsis S. Girgis, ABB

(see separate DVPQG Program Abstracts and Bios – September 27th, 2017 document)

Meeting Information:

**Place: Rutgers EcoComplex
1200 Florence-Columbus Road
Bordentown, NJ 08505**

**Date: Wednesday, September 27th, 2017
Time: 10:00 AM to 3:00 PM**

**Lunch Will Be Provided
Please RSVP by Fri., Sept. 22nd, 2017**

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 2018 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.

- | | | |
|-----------------------------|---|-----------------|
| 1. <input type="checkbox"/> | Meeting – DVPQG Member | \$ 55.00 |
| 2. <input type="checkbox"/> | Meeting – Non-Member | \$ 75.00 |
| 3. <input type="checkbox"/> | Mtg. & 2018 Membership | \$ 80.00 |
| 4. <input type="checkbox"/> | Meeting & (3) yr. Membership | \$115.00 |
| 5. <input type="checkbox"/> | 2018 Membership (1 yr.) | \$ 30.00 |
| 6. <input type="checkbox"/> | 2018-2020 Membership (3 yr.) | \$ 75.00 |

SEATING IS LIMITED! Please pre-register...Registration at the door is **\$10.00** extra. (Cancellation Policy: Registrations are non-refundable. To cancel your registration and receive a credit for a future meeting, you must contact DVPQG (i.e. email: treasurer@dvpqg.org or call 717.252.4730) at least 24 hours prior to the meeting. Otherwise, no credit 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., 22nd, 2017
Please be complete in filling out registration.

You may also pre-register by E-mail to registrations@dvpqg.org and then mail your payment.

Attendees receive Certificate of Completion for 4.0 Hours!
(applicability and credit may vary between jurisdictions)