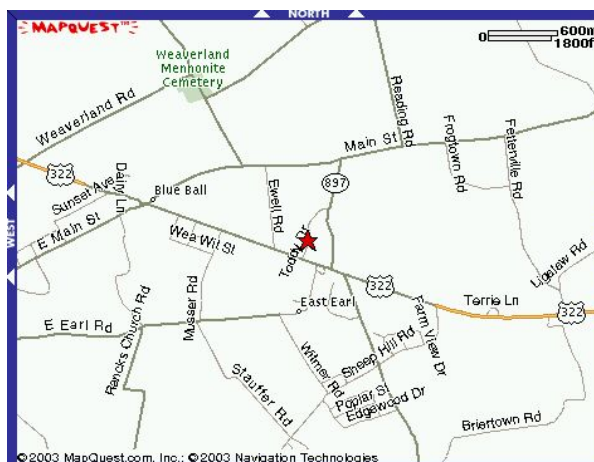




On behalf of:

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

The Shady Maple Smorgasbord, featured in the Philadelphia Inquirer, is located at 129 Toddy Lane, East Earl, PA. Take the PA Turnpike to Exit 298 (old Morgantown Exit 22). From the Turnpike, follow the Morgantown exit to 2<sup>nd</sup> traffic light then take Route 23 West (becomes Main St.) for approximately 10 miles to Route 897 to Toddy Lane.

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 26<sup>th</sup>, 2018 at**

***Shady Maple Smorgasbord  
129 Toddy Lane  
East Earl, PA 17519***

Meeting Agenda:

**What's Standard About Standards:  
PQ Standards and Guidelines in Today's Industry**

Main Speaker:

**Richard P. Bingham  
Hanahou Enterprises, LLC**

**IT'S TIME TO RENEW YOUR DVPQG  
MEMBERSHIP FOR 2019. 3 YEAR  
RENEWAL IS THE BEST VALUE!**

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## What's Standard About Standards: PQ Standards and Guidelines in Today's Industry

### Program Description:

- *Why the need for standards? How are they useful? How are they misused?*
- *ANSI C84.1 – the only 'law' in town*
- *Evolution of standards under the IEEE Power Quality Subcommittee*
- *IEEE PQ Standards – what they are, how to apply, and how not to apply them*
  - *519 and it's dot series – Harmonic Control in Power Systems*
  - *1159 and it's dot series – Monitoring Electric Power Quality*
  - *1250 – Voltage Quality*
  - *1346 – Evaluating Electric Power System Compatibility*
  - *1409 – Application of Power Electronics for PQ Improvement*
  - *1453 and it's dot series – Flicker*
  - *1564 – Voltages Sag Indices*
  - *Other Working group activities*
- *International Standards – different approach, harmonization of standards*
  - *61000-4 series – Testing and measurement techniques*
  - *61000-2 series – Limits on various PQ parameters*
  - *62586 series – Power Quality Measurements in Power Systems*
  - *EN50160 – Voltage Characteristics in Public Distribution Systems*
- *Other IEEE Standards of interest*
  - *1100 – the Emerald Book (Recommended Practice for Grounding and Powering Electronic Equipment)*
  - *1366 – Guide for Electric Power Distribution Reliability Indices*
  - *1547 – Interconnecting Distributed resources with Electric Power Systems*
  - *1889 – Evaluating and testing the Electrical Performance of Energy Saving Devices*
- *Where next – What's Missing*

### Speaker: Richard P. Bingham, Hanahou Enterprises, LLC

Richard P. Bingham retired in 2008 as the VP of Product Development and Marketing for WPT, which includes Dranetz-BMI, Electrotek Concepts, and Daytronic. He joined Dranetz in 1977, and held positions as project engineer, chief technologist, VP of Engineering, and VP of Strategic Planning. Richard is a member of IEEE Power Engineering Society (presently the chair of the PQ Subcommittee), and Tau Beta Pi (the Engineering Honor Society), and also served as the chairperson on the NFPA 70B Electrical Equipment Maintenance committee and on CMP 20 of NEC on Critical Operation Power Systems. Since retirement, he has written over 250 articles for technical journals, formed an engineering consulting company (Hanahou Enterprises LLC), working for various companies on power quality investigation, expert witness services, project management, and new product development, as well as a construction company (Hanahou Home Improvement LLC). Richard has authored over than 20 papers for technical conferences, taught countless seminars, and authored the *Power Quality Analysis* book for NJATC, published 2010. And he still finds PO exciting.

### Meeting Information:

**Place:** Shady Maple Smorgasbord  
129 Toddy Lane  
East Earl, PA 17519 (new facility  
is just off Rt. 23 and Rt. 897)

**Date:** Wednesday, September 26<sup>th</sup>, 2018

**Time:** 10:00 AM to 3:00 PM

Lunch Will Be Provided  
Please RSVP by Friday Sept. 21<sup>st</sup>, 2018

### 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 2019 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"/> | <b>Meeting – DVPQG Member</b>           | <b>\$ 55.00</b> |
| 2. <input type="checkbox"/> | <b>Meeting – Non-Member</b>             | <b>\$ 75.00</b> |
| 3. <input type="checkbox"/> | <b>Mtg. &amp; 2019 Membership</b>       | <b>\$ 80.00</b> |
| 4. <input type="checkbox"/> | <b>Meeting &amp; (3) yr. Membership</b> | <b>\$115.00</b> |
| 5. <input type="checkbox"/> | <b>2019 Membership (1 yr.)</b>          | <b>\$ 30.00</b> |
| 6. <input type="checkbox"/> | <b>2019-2021 Membership (3 yr.)</b>     | <b>\$ 75.00</b> |

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](mailto: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. 21<sup>st</sup>, 2018**

**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.

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