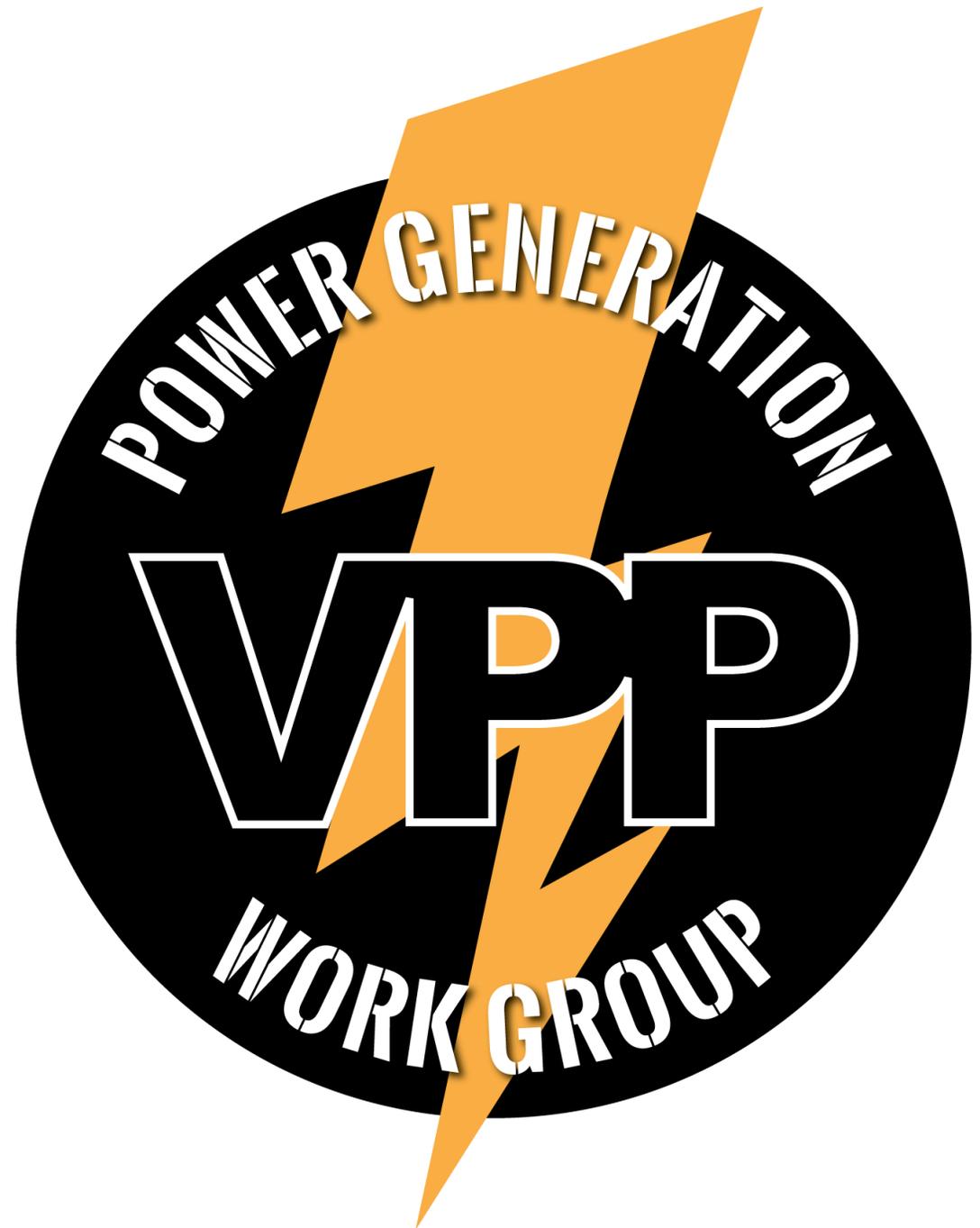


VPP
POWER
GENERATION
WORK
GROUP

August 18, 2022

Please check in on the chat function
with your name, title and company.
Feel free to add email





2022 3rd Quarter Meeting

Your Facilitators:

Alex Miller
Sr. Regional Safety Manager & VPP Coordinator
Vistra Corporation

Kelli Heflin
Sr. Manager, Safety & ESG Coordinator
Onward Energy

Safety Moment

Presented By:

Michael Circle

Safety EHS Specialist

Onward Energy



New Standards for Fixed Ladders

OSHA 1910.23

OSHA 1910.23(d) – Fixed Ladders

Before the new standards

- Fall protection on FL's 20ft or taller
 - Cages
 - Wells
 - PFAS's

After Nov. 19, 2018

- Ladders 24ft or taller
 - Cages/wells removed by Nov. 19, 2036
 - Must be equipped with Ladder Safety System or PFAS

More on Fixed Ladder Compliance

Rung width –
16 inches
1910.23(b)(4)

- Give a little more room for Ladder Safety Systems

Clearance from support
(the wall) – 7 inches
1910.23(d)(2)

- Includes permanent obstructions like pipe/conduit

Step Through Height –
42 inches
1910.23(d)(4)

- Above access level (roof/next floor) to keep hands on rails when exiting ladder

Step Through Width –
24 Inches
1910.23(d)(5)

More reminders

- All employees using PFAS on fixed ladders must be trained (1910.30)
- Check fixed ladders for loosened bolts.
- Always check portable ladders for damage.
- Portable ladders must extend 3ft above walking/working surface (1910.23(c)(11))
- Ensure no ladder is used beyond its max intended load (1910.23(c)(3),1910.23(d)(1))



VPP Updates

Since last meeting:

New VPP Applications Submitted or Accepted

Initial VPP Approvals

VPP Reapprovals

VPP Element

Benchmarking in VPP
Results & Next Steps Discussion

Alex Miller and Kelli Heflin

Qualified Electrical Worker (QEW) Benchmarking Project

Power Generation VPP Work
Group

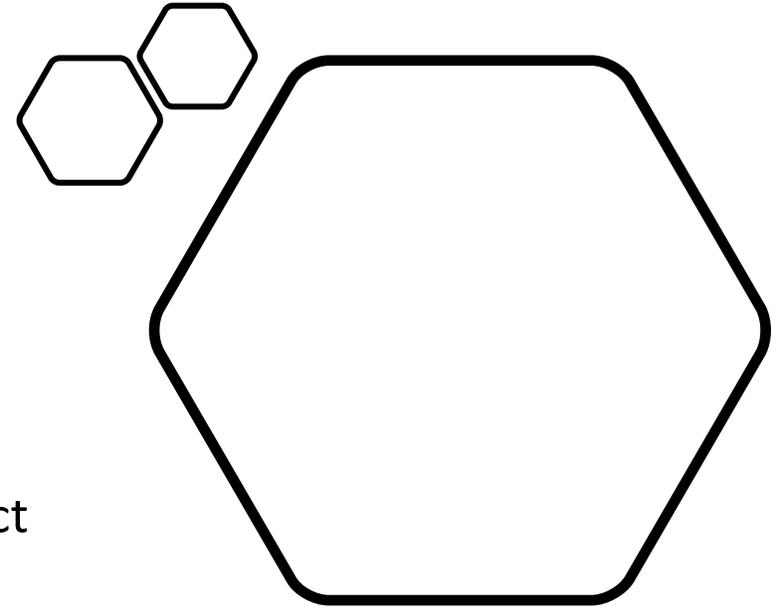
August 18, 2022

3rd Quarter Call



QEW Benchmarking Background

- Hosted first meeting in March 2022
- Regrouped and engaged OSHA on approaching the project
- Why this project?
 - Significant interest from our membership in benchmarking
 - QEW was the topic that garnered the most interest
 - We learned that benchmarking wasn't just about networking and best practices, it is about identifying gaps at your own site and working to close those gaps with best practices from other sites

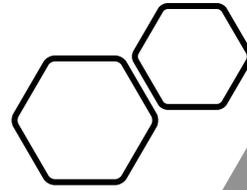


Project Development and Purpose

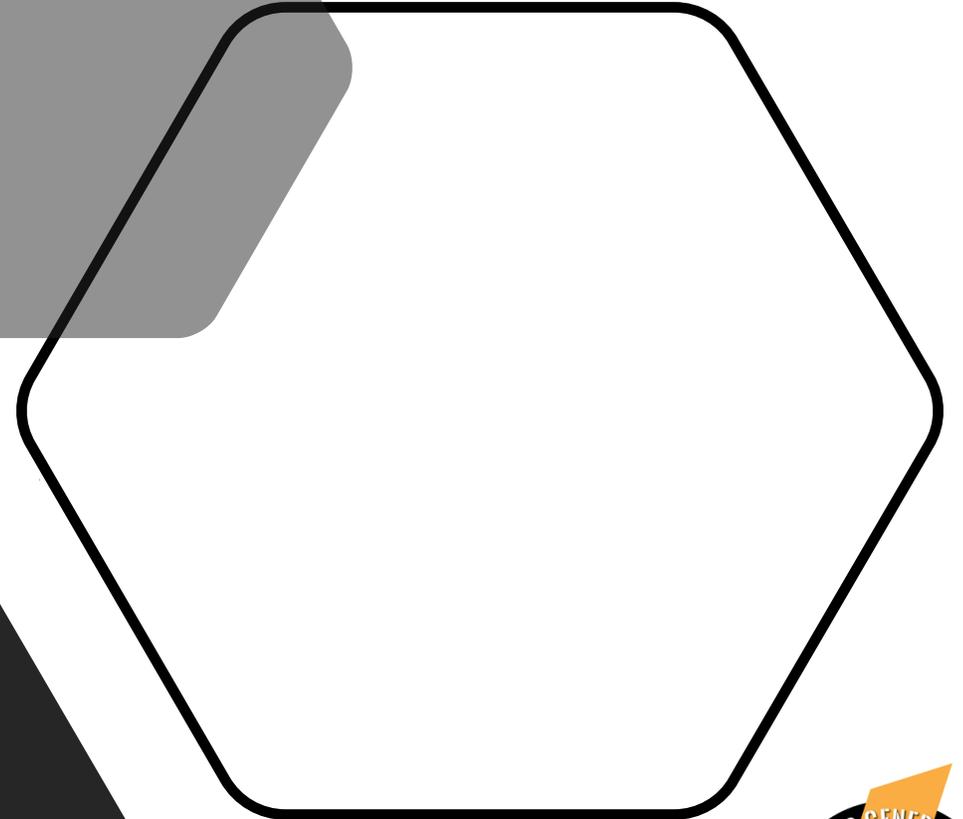
- Developed the survey with input from OSHA
- Questions were based on elements OSHA 1910.269 Electric Power Generation, Transmission and Distribution and NFPA 70E
- What did we hope to deliver?
 - A status check for our member's QEW programs
 - How are companies identifying the gaps
 - How are gaps closed
 - Identify and share best practices



Benchmarking Results



- We had 40 respondents – approximately 25% of PGVPP membership
 - 92% of multiple-choice questions were answered
 - 63% of open-ended questions were answered
 - Numerous best practice shared



Training Program (100% answered Q1 & Q2)

- Q1 - Does your site have a specific Qualified Electrical Worker training program?
- 80% indicate that there is a QEW training program.

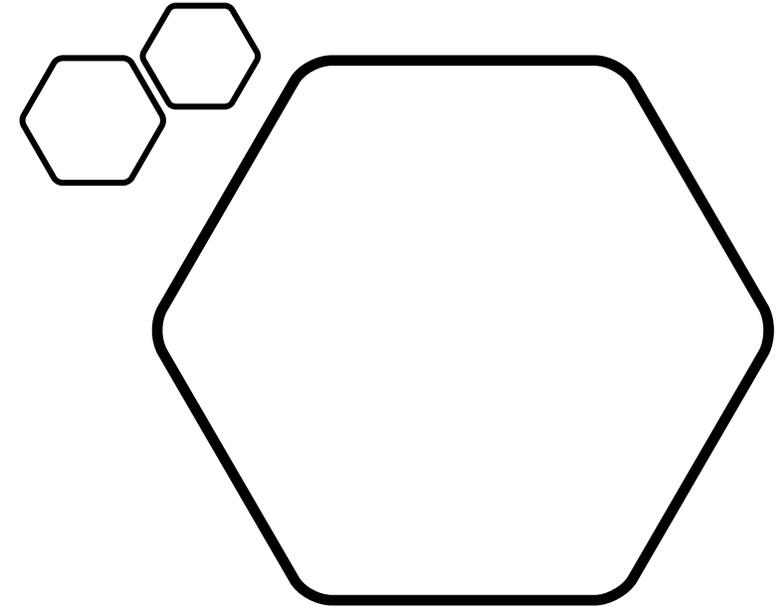
- Q2 - Does this program have written requirements set forth (a qualification card or something similar)?
- 70% responded that there are written requirements established.



Training Program (100% answered Q3 & Q4)

- Q3 - Does the program include both classroom and proficiency elements?
- 70% indicate that both elements are present.

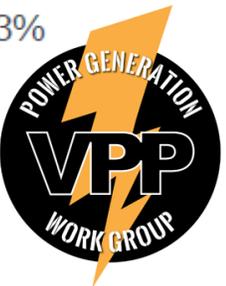
- Q4 - Is the training/proficiency documented?
- 77.5% responded that there is documentation.

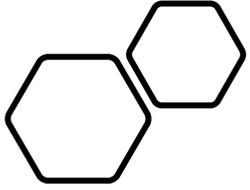


Q4 - Training Program Elements Include:

(75% answered Q5)

Safe work practices, safety procedures and other safety requirements that pertain to QEW job assignments	96.67%
Applicable emergency procedures	86.67%
Skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment	90.00%
Skills and techniques necessary to determine nominal voltage of exposed live parts	86.67%
Minimum approach distances corresponding to the voltages to which the qualified employee will be exposed and the skills and techniques necessary to maintain those distances	93.33%
Proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials and insulated tools for working on or near exposed energized parts of equipment	96.67%
Recognition of electrical hazards to which the employee may be exposed and the skills and techniques necessary to avoid or control those hazards	93.33%





Training Programs

- Q8 (85% answered Q8) – Additional training is required IF:

Inspections/Audits indicate employee is not complying with safety work related practices	73.53%
New technology, new equipment or change in process/procedures necessitate use of work practices that are different from those which the employee would normally use	88.24%
Employee must employ safety work practices that are not normally used during regular job duties	58.82%

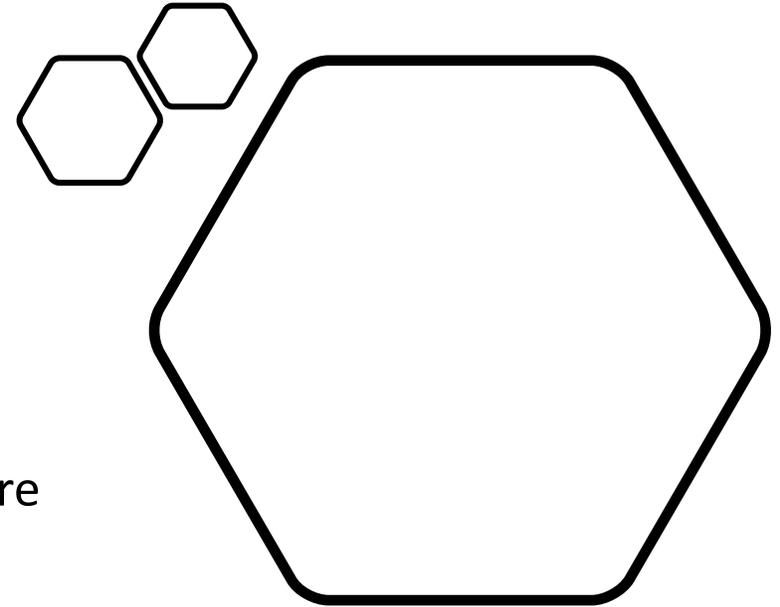
- Q9 - (100% answered Q9 Have you identified any gaps in your QEW training program?
- 32.5% responded that gaps were discovered.



Audits and Auditing Practices

- Q6 - (100% answered Q6) Does your site perform inspections/audits of each QEW at least annually to ensure compliance with the safety related work practice?
- 52.5% indicate that audits are performed at least annually.

- Q7 - (100% answered Q7) Are those inspections/audits documented?
- 57.5% responded that there is documentation.

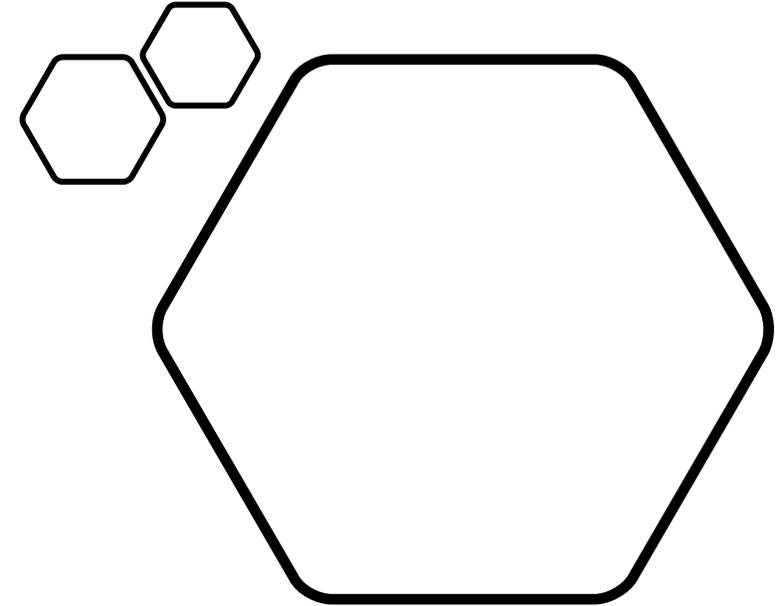


Hazard Control Process

- Q12 - (93% answered Q12) Do you have a hierarchy of controls in place?
- 83.8% indicate that the hierarchy of controls is implemented.



Follow up to Question 9 – What gaps were identified? (12 responses)



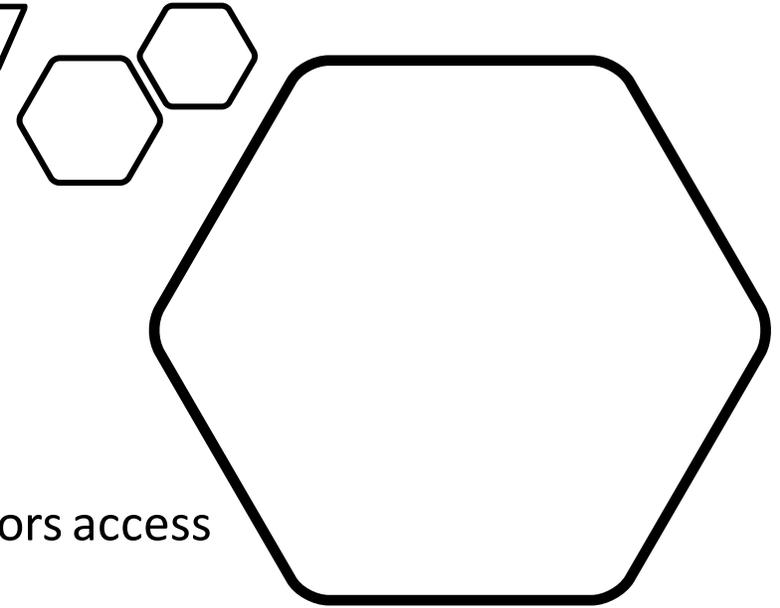
- Frequently cited gaps / struggles
 - Training / Documentation of training
 - Refresher training / task evaluation
 - Misunderstanding of the QEW qualification
- Successful comments
 - Working with 3rd parties to develop and deliver training

Q10 - What are the corrective actions taken to ensure the gaps are closed and will not occur in the future? (22 Responses)

- Frequently cited actions
 - Develop and implement a corrective action process with tracking
 - Revamping training programs
 - Evaluation documentation methods
 - Increase frequency of safety observations



Q11 - How do you ensure contractor compliance with QEW training? (27 Responses)



- Frequently cited practices

- Prohibiting contractors from operating electrical equipment
- Employees complete all energy isolation prior to giving contractors access
- 3rd party verification such as ISN, Avetta, etc.
- Internal review of contractor qualifications
- Job / task review with contractors
- Engage with fully qualified electrical contractors (licensed, union trade apprenticeship programs)
- Contractual requirements for contractors to provide fully trained and qualified workers
- Reviewing contractor certifications

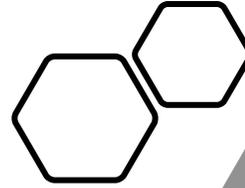


Q13 – Examples of engineering controls implemented. (27 Responses)

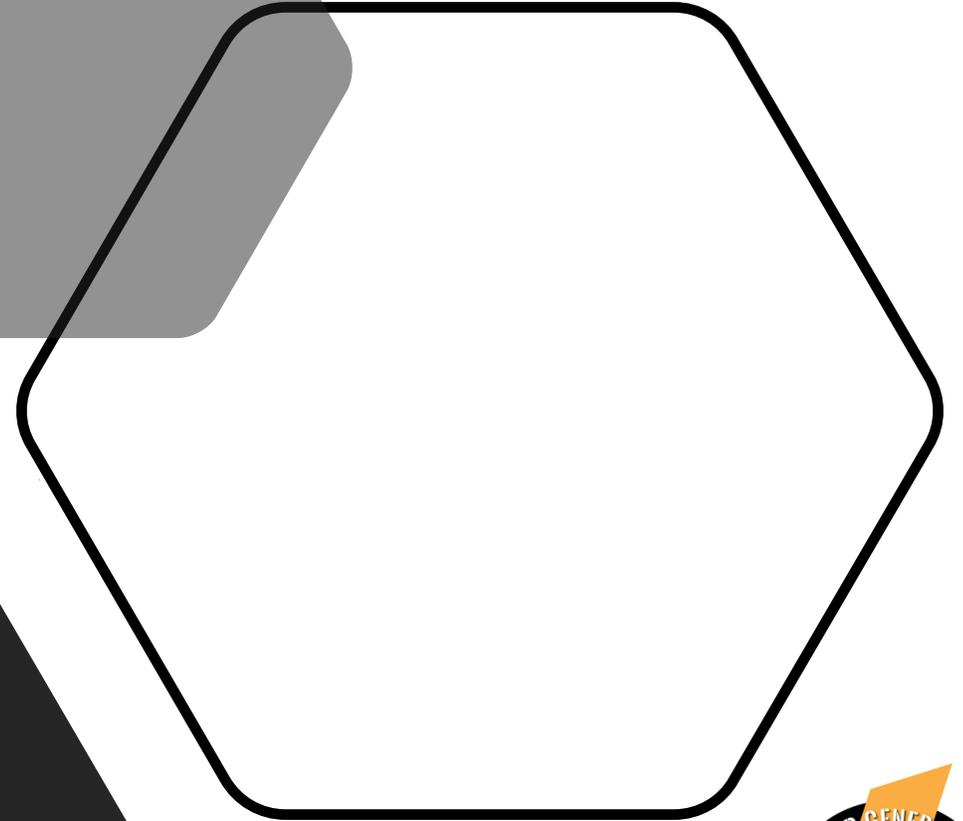
- Remote racking was the most common
- Fiberoptic arc sensing relays
- Electrical arc terminators
- Upgraded switchgear

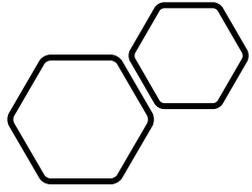


Q14 – One QEW Best Practice



- Using remote racking when available
- QEW specific pre-job briefs
- Management approval for any live electrical work or testing
- Arc flash gloves rather than electrically rated gloves when there is no electrical hazard
- Only working on electrical components when they are isolated / de-energized
- Regular refreshers on NFPA 70E labeling / requirements
- Engage workers in QEW review and improvement processes
- Higher minimum PPE requirements





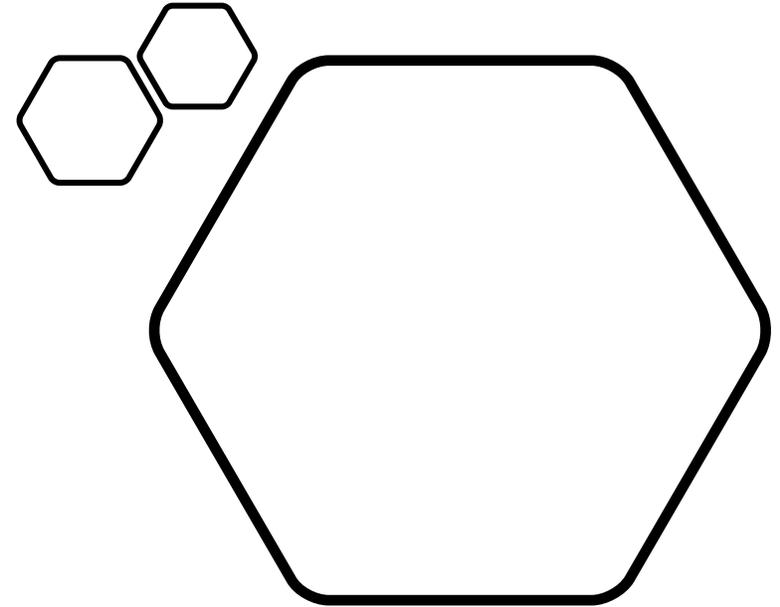
QEW Benchmarking Project Takeaways

- Respondent's have QEW programs that are adequately protecting workers.
- Respondent's QEW programs do have opportunities to improve.
- Best practices that exceed regulatory requirements were clearly noted in the majority of responses.



Next Steps

- Investigate developing a standardized QEW Package to include classroom training and proficiency checklist that can be adopted fully or partially.
- Additional focused benchmarking on:
 - Auditing / inspections
 - Implementing QEW training (3rd party or QEW Package)



Questions?

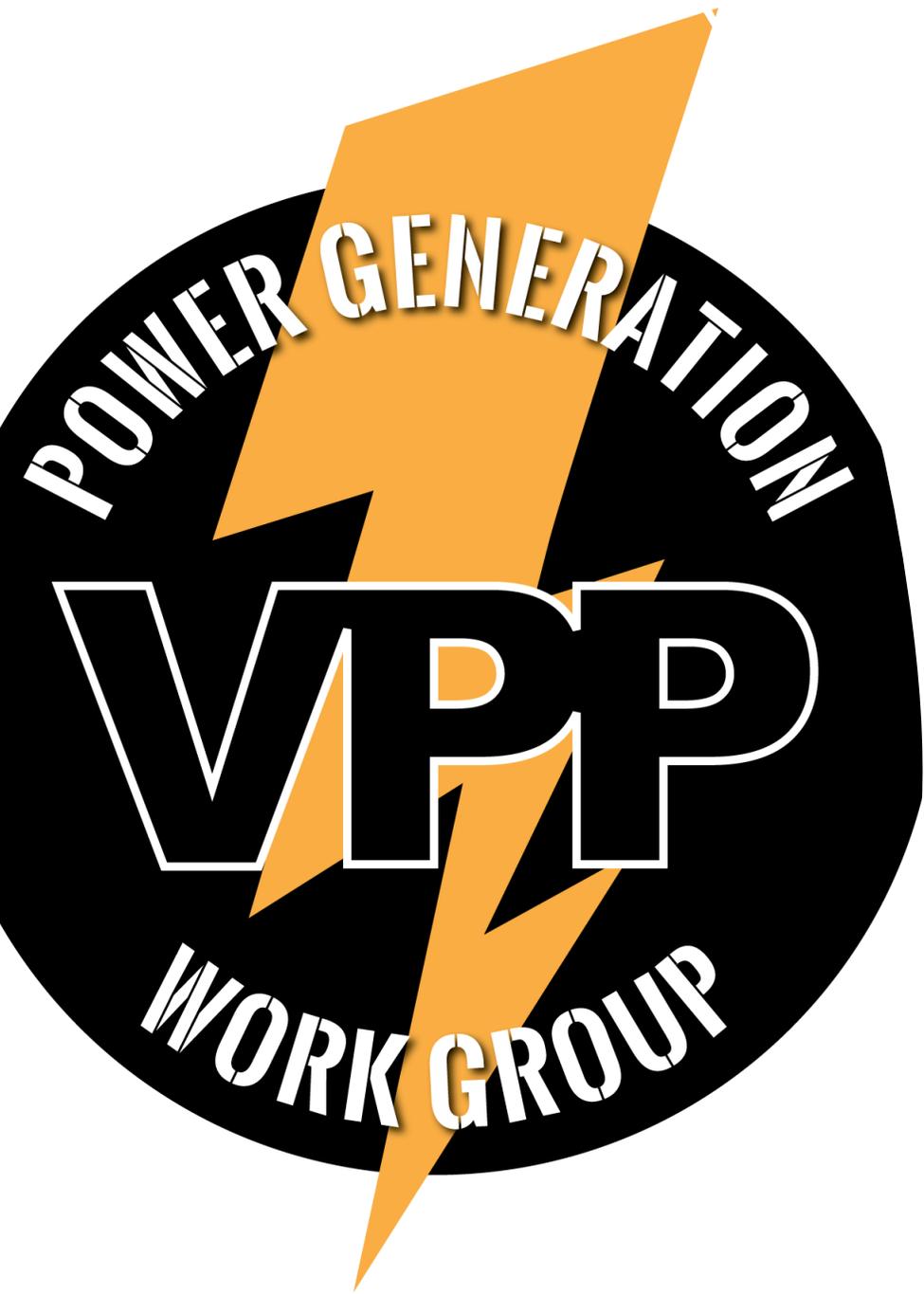


Committee Updates



- Newsletter Committee
 - Newsletter scheduled for Q4 - November
- Newsletter Contributions
 - What does the group want to see?
 - Send ideas, proactive topics, presentations, etc. by October 15th.
 - Reminder email to be sent to the group on September 15th.
- Contact Courtney Robinson
Courtney.Robinson@Luminant.com





Open Discussion

Questions?

Suggestions?

Discussion points?





2022 VPPPA Conference Schedule

UPCOMING EVENTS



VPPPA CONFERENCES

NATIONAL - AUGUST 23-25, 2022 WASHINGTON, D.C.

~~REGION I - JUNE 21-23, 2022 KILLINGTON, VT~~

REGION II - TBD

~~REGION III - MAY 8-13, 2022 HERSHEY PA~~

~~REGION IV - JUNE 7-9, 2022 BIRMINGHAM, AL~~

~~REGION V - JUNE 13-16, 2022 SANDUSKY, OH~~

~~REGION VI - MAY 23-26, 2022 SAN ANTONIO, TX~~

REGION VII - OCTOBER 17-19, 2022 DES MOINES, IA

~~REGION VIII - MAY 2-5, 2022 IN CHEYENNE, WY~~

~~REGION IX - APRIL 26-28, 2022 HENDERSON NV~~

~~REGION X - MAY 10-12, 2022 BOISE, ID~~



2022 Meeting Schedule

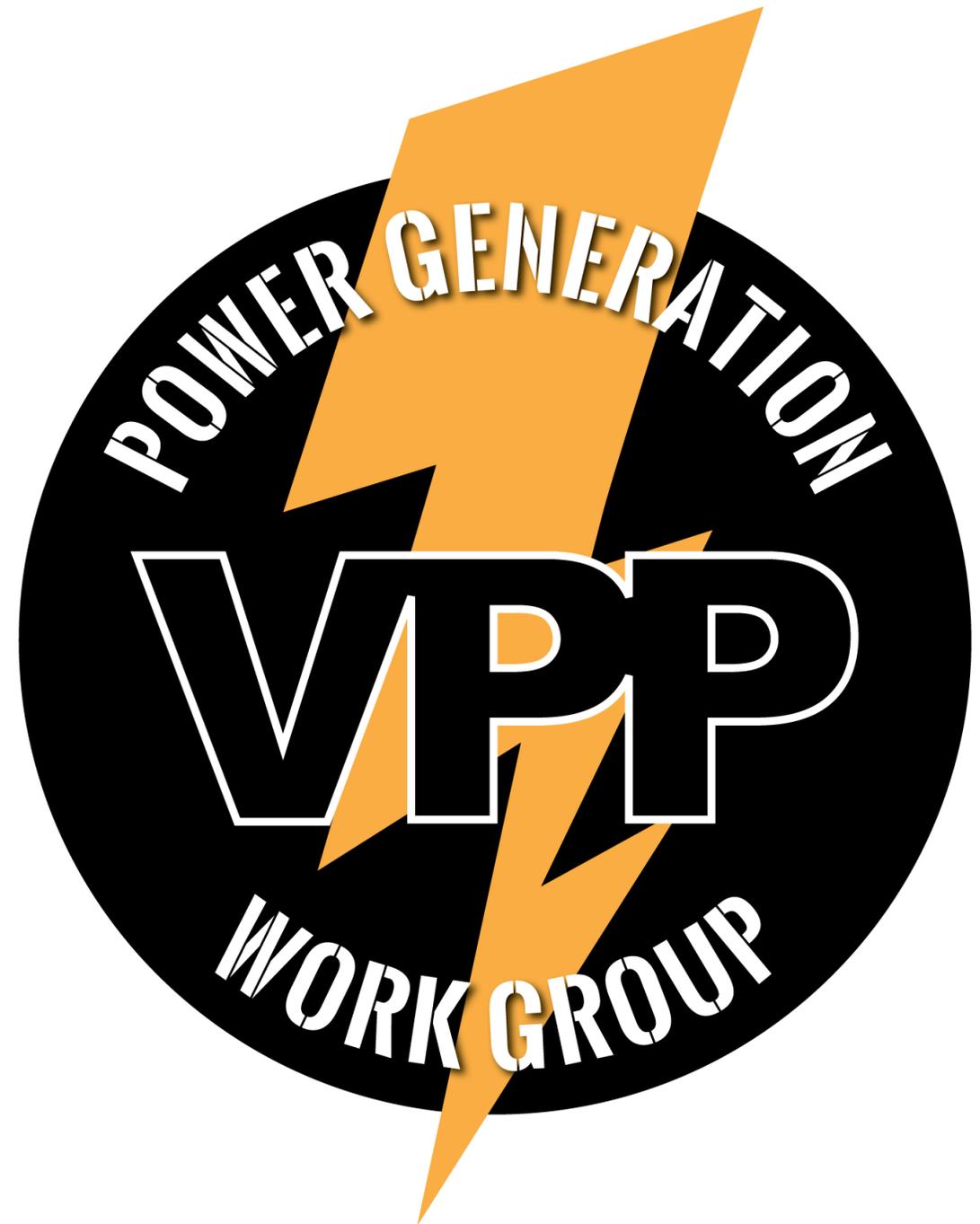
~~February 17th~~

~~May 19th~~

~~August 18th~~

November 17th

Meetings are scheduled from 1430 – 1600ET (1230 – 1400MT)





Next Call: November 17, 2022

If you have not already done so, please enter your attendee names, site name and company name into the chat function on the Zoom meeting.

Send Suggestions or offers to volunteer to:

Alex Miller – alexander.miller@vistracorp.com

Or

Kelli Heflin – Kelli.Heflin@OnwardEnergy.com
