Minutes of the 16 November 2023

Membership Meeting of the

IAEI Western PA Chapter

Gaetano’s Restaurant

1617 Banksville Road

Pittsburgh PA 15216

Steve Palchowski called the meeting to order at 7:00 pm with 49 members present. The meeting opened with the Pledge of Allegiance to our flag and a moment of reverence to honor those serving in our military and all first responders, both past and present.

Palchowski read the minutes of the 19 October meeting. No changes or corrections were offered by the membership.

Dave Platt asked the membership for their thoughts and comments on the idea of mixed locations for future meetings as an opportunity to increase attendance. Several members offered comments. This topic was tabled for further discussion after the first of the year.

Palchowski introduced Scott Martin and Christy McElhinny, Eaton Electrical North American Sales in Rochester, NY, as the speakers for the meeting. The topic will be Electric Vehicle Charging Stations. Mr. Martin opened his presentation with an overview of the user and supply interaction. Essentially the user is limited by the supply and the supply must be designed to meet the users need with some limitations. The presentation started at 7:15 pm.

Topics discussed were:

Energy transmission

Centralized and Decentralized Generation

Bi-Directional power flow

Grid delivery limitations

Energy Storage

PV Generation

EV charging consumption

EV charging management software

Industrial, Commercial Fleet Vehicle and Residential installations

Common EV Charging Plug types

Green motion

EV Smart Charging

Flexible installations and integrated users

EV Wall Plugin charging stations

EV Pedestal charging stations

EV Charging Boards for multi-unit and light commercial locations

Green Motion EV charging management apps for cell phone management

EV Busway System for depot charging of commercial vehicles

Charging network management

Mr. McEliheny continued the presentation.

The following topics were discussed:

Circuit over current devices, fuses and circuit breakers

NEC 70 Article 100 definitions,

O/C Devices Overloads, fires and equipment heat damage

Short Circuit Faults

- High current flow 200 to 500 amps

NEC Article 100 definitions,

Fault Current O/C Devices

- mechanical, solid state electronics, fast acting fuses Operational characteristics of current unlatching

CB Types

- low voltage, molded case, and insulated case Fuse Characteristics

- non-time delay, time delay, and high speed

Key features of fuses

- end blades, tube case, and fuse link

Dual Element Fuses

- short circuit and overload elements

Key Over Current Protection ratings

- amps, volts, and slash

NEC 70, Article 240.85, slash rating 480/277 volt applications

Interrupting rating, NEC 70, Article 100 and 110.9, OSHA 1910.303(b)(4)

Application of low voltage fusing and degree of current limitations vs degree of time delay.

The presentation ended at 9:30pm and the meeting was adjourned..