# 2018 GENERAL Meeting meeting Minutes of Power Qaulity Subcommittee – Harmonics WG (519.1)

## Meeting Location and Time

Portland, Oregon  
Tuesday, 2018 August 7, 15:00 to 17:00  
Oregon Convention Center – Room E141

## MEEting Minutes

### Attendees

David Zech Kenn Sedziol

Nick Zagrodnik Jan Meyer

Mark Halpin Dave Mueller

Douglas Hooker

Steven Johnston Tom Nelson

Kevin Kittredge Scott Peele

Joe Grappe Matt Norwalk

Bill Howe Marc Patterson

Roberto Langella Paulo Ribeiro

Surya Santoso Steve Tatum

David Hartmann Rohit Nair

Andres Arguello Igor Papic

Glenn Aiemjoy Dragan Ristanovic

Amir Kazemi Doug Price

Paul Ortmann Jim Harries

The meeting was called to order by Mark Halpin at 1513. Minutes were recorded by Nick Zagrodnik.

### Old Business

### New Business

Held discussion on two proposals to increase even order current harmonic limits

1. Raise even order harmonic limits above the 17th order only to be equal to that of odd order limits in their respective harmonic order ranges.
2. Raise all even order current harmonic limits to be equal to that of odd order current harmonic limits in their respective harmonic order ranges.

Dave Zech gave a presentation referencing a case study involving a steel mill on the 345 kV and the difficulty in meeting 2nd order harmonic current distortion limits following the application of an SVC and harmonic filtering to address a flicker issue.

Dave Zech also referenced an IEEE transactions paper by Alex Emmanuel, “On the need for strict second harmonic limits.” The paper recommends 2nd harmonic voltage distortion limit of 1%.

Research is being conducted on effects of 2nd harmonic voltage, which was the concern identified in the Alex Emmanuel paper.

A straw vote was taken on adjusting all even order current harmonic limits to the same as odds. Showed a majority support.

Mark Halpin solicited volunteers for review of existing topics submitted for 519.1, and also for additional topics.

Meeting adjourned at 1637.

### Summary of Volunteers for Future Activities: