# 2021 General meeting Meeting Minutes – Harmonics WG (519 & 519.1)

## Meeting Location and Time

Webex - Remote

2021 July 22  
9:30 AM – 11:00 AM EDT

## MEEting Minutes

### Attendees

David Zech Andy Beckman

Nick Zagrodnik Emre Ozsoy

Mark Halpin Rey Ramos

Steven Johnston Francisc Zavoda

Kevin Kittredge Theo Laughner

Joe Grappe Vong Chan

Bill Howe Jan Meyer

Shreerang Ganu Dan Sabin

Gary Chang Julio Barros

Sharmeela Chenniappan Sivaraman P

Math Bollen Justin Kuhlers

David Mueller Surya Santoso

Grazia Todeschini Nikunj Shah

Kenn Sedziol Roberto Langella

Gaurav Singh Anthony Murphy

Michael Kipness Matt Norwalk

Chris Mullins

The meeting was called to order by David Zech at 9:32am. Minutes were recorded by Nick Zagrodnik.

### Old Business

IEEE mandatory legal slides were reviewed by the Chair. No patents were identified by the attendees.

Quorum was established. Minutes approved from 2021 JTCM.

Still need to approve minutes from 2020 JTCM

### New Business

PAR expires EOY 2021. Will be requesting PAR extension for 1 year in order to properly address all comments and any re-circulation. Along with the PAR extension, the scope and purpose of the PAR will be revised in order to match what’s in the draft that was submitted for initial ballot.

Dave Zech to correct spacing issues with tables and figures before next re-circulation.

Reviewed comments from initial ballot that may be addressed in a future revision and/or IEEE 519.1, which included the following:

* + - Include interharmonic current limits in tables 2 through 4
    - 2nd harmonic current limits are not achievable for arc furnaces
    - Consumer’s ability to control system impedance characteristics resulting in amplified voltage distortion (last paragraph in clause 1.2)
    - Consumer’s ability to control their harmonic current emissions resulting in amplified voltage distortion (in the case of VSC)
    - Add text to allow consumers to exceed current distortion limits if the effect is reduced voltage distortion
    - Revise or remove the HVDC note under Table 1
    - Examples for how to do something in 519 (such as computing percentiles)
    - The rationale for changing a limit (such as the even harmonic limits change)
    - Changing harmonic voltage and current limits for systems > 161 kV (primarily related to VSC HVDC). Also include explanatory information in 519.1 related to background harmonic voltage, network harmonic impedance, and frequency dependent damping of the network harmonic impedance.
    - In Annex A, relax higher order interharmonic voltage limits when compared with lower order interharmonic voltage limits. Claim is that flicker is not an issue at interharmonics above the 11th order.

Spent time discussing the validity and intent of note a. under table 1. Note a. provides additional allowance for HVDC terminal caused voltage distortion. Will leave as is and may address in a future revision after further studying and research.

Mark picked up at 11:39 am for 519.1

Reviewed existing draft outline for 519.1. Related certain comments from 519 initial ballot and how those should and/or shouldn’t be incorporated into the 519.1 document.

Math Bollen commented that there are CIGRE groups working on areas relating to those future revision considered comments and that it may be good to use them as a resource.

Solicited volunteers for contributions to 519.1 related to comments on initial ballot of 519.

Deadline for contributions to P519.1 from all those who volunteered set for 10/1/2021.



Meeting adjourned at 12:10PM

### Summary of Volunteers for Future Activities:

Dan Sabin, Nikunj Shah and Shreerang Ganu to provide samples of compliance report examples to be used in 519.1 based on 519-2021, when published.

Dave Zech and Kenn Sedziol to work on Decision tree examples.