



Vereniging voor
Experimenteel
Radio Onderzoek
in Nederland

Photo-Voltaic Installations threaten Hamradio in the Netherlands

IARU-R1 Interim meeting

Vienna 2016 April 14- 15

VERON EMC- EMF Committee

Jan Janssen, PA0JMG, 2016



SOLAR ENERGY is Hot

- Installation costs VAT deductible
- Balancing of used and feedback kWh
- Payback for surplus kWh
- Less fossil energy consumption



Installation of PV systems

- Only electrical safety considered
- No EMC awareness
- Price and efficiency is leading
- Panel DC/DC Converters
- Readout and communication



High Disturbance in HF bands

- Cabling and Panels radiate
- No filters on DC side of GCPC CM/DM currents
- Radiation of DC cabling, loops
- Unfiltered DC/DC panel converters
- Communication < 400 kHz



EMC Standards and Limits?

- CISPR 11 has no disturbance limits for DC side of GCPC converter until Ed 6.
- CISPR 11 has no disturbance limits for DC/DC panel converters. TBD
- Radio Communications Agency takes no action!
- Environment vs hobby !!



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Interim solution needed to advise HAMs

Proposal for IARU- R1 EMC WP

“ to develop and distribute an
Installation guide for amateurs how to
set up/install and deal with PV
installations”



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Thank You

www.veron.nl