



Radiocommunications Agency
*Ministry of Economic Affairs, Agriculture and
Innovation*

About PLC

Netherlands EMC ESD
society

Knowledge Market South

June 2012

2012-06-12



Agentschap Telecom

- Radio Communications Agency
- Competent authority
 - EMC Directive
 - R&TTE Directive
- Groningen
- Amersfoort
- 260 FTE



Agentschap Telecom
Ministerie van Economische Zaken

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PLC

- Auxiliary signals on the mains voltage
 - Differential mode
- Organic growth in performance and frequency
 - 1950 .. 1985 : 110 Hz .. 2 kHz , ripple control
 - 1985 .. 1995 : 3 .. 148.5 kHz , HBES
 - 1995 .. 2012 : in house, access, internet, etc

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PLC, an EMC issue

- For functioning higher level than average equipment
 - Higher frequencies: signal gets common mode at distance
 - Potential disturbance source
- Under 150 kHz no limits for most equipment
 - Choppers get very popular
 - PLC becomes potential EMC victim
- EMC standardization not intended for communication
 - Hang-up !

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Radio Agency position

- PLC technology should have a chance
- Need for usable standards

- If the 'EMC route' : pretend that it is an average equipment, does not work, then allocate frequencies

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Radio Agency questions

- What is PLC market expectation?
 - In house , access , smart metering
 - Netherlands , Europe , global
- What is PLC technology expectation?
 - Performance and frequency use
- What is the legal position of the utilities?
 - Access PLC will use Utilities cabling

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