

# Panel Discussion ISPLC



alliander

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# Alliander overview

Alliander is the largest grid company in the Netherlands with 2.1 million gas connections, 2.8 million electricity connections and 5,500 employees (FTE).

## Key Facts

- Regulatory changes in July 2008 lead to the unbundling of **Nuon** (production & supply) and **Alliander** (grid - formerly named Continuon)
- Alliander serves and maintains **2.1 million gas** connections and **2.8 million electricity** connections
- Transported: 5.8 billion m<sup>3</sup> gas, 32 GWh electricity
- Alliander has €1.2 billion revenues (2007), of which: Gas €0.2 billion, Electricity €0.8 billion, Free domain €0.2 billion
- EBIT (2007) is €161 million
- Employees: **5,500 FTE**



# Statements



## 1. Performance of PLC operating in real LV-networks is basically unknown!

- Channel is not well modeled.
- Counter Example: Cellular RF Technology. Extensive measurement campaigns led to accurate channel models, which in turn enabled precise link budget calculations.
- Question: How can we expect a utility to invest in a PLC technology without knowing beforehand if this technology will fulfill the business requirements?

## 2. It is unknown if the PLC technology developments can keep up with the worsening of the transmission channel over time!

- Due to the increase of decentralized power generation the number of power electronic devices coupled to the LV-network will increase. This leads to a worsening of the channel transmission characteristics.

# Statements



3. To get a PLC technology accepted as a viable communication technology for a utility, it should fully support IPv6.
- Enables phase out and phase in of communication technologies within an IP based communication network.

