



S M A R T **G** R I D S

Strategic Research Agenda Working Group WG1: Network Assets

**Subgroup 3: What is needed to really put customers
in the center and how to realize this ?**

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SMARTGRIDS

Customers

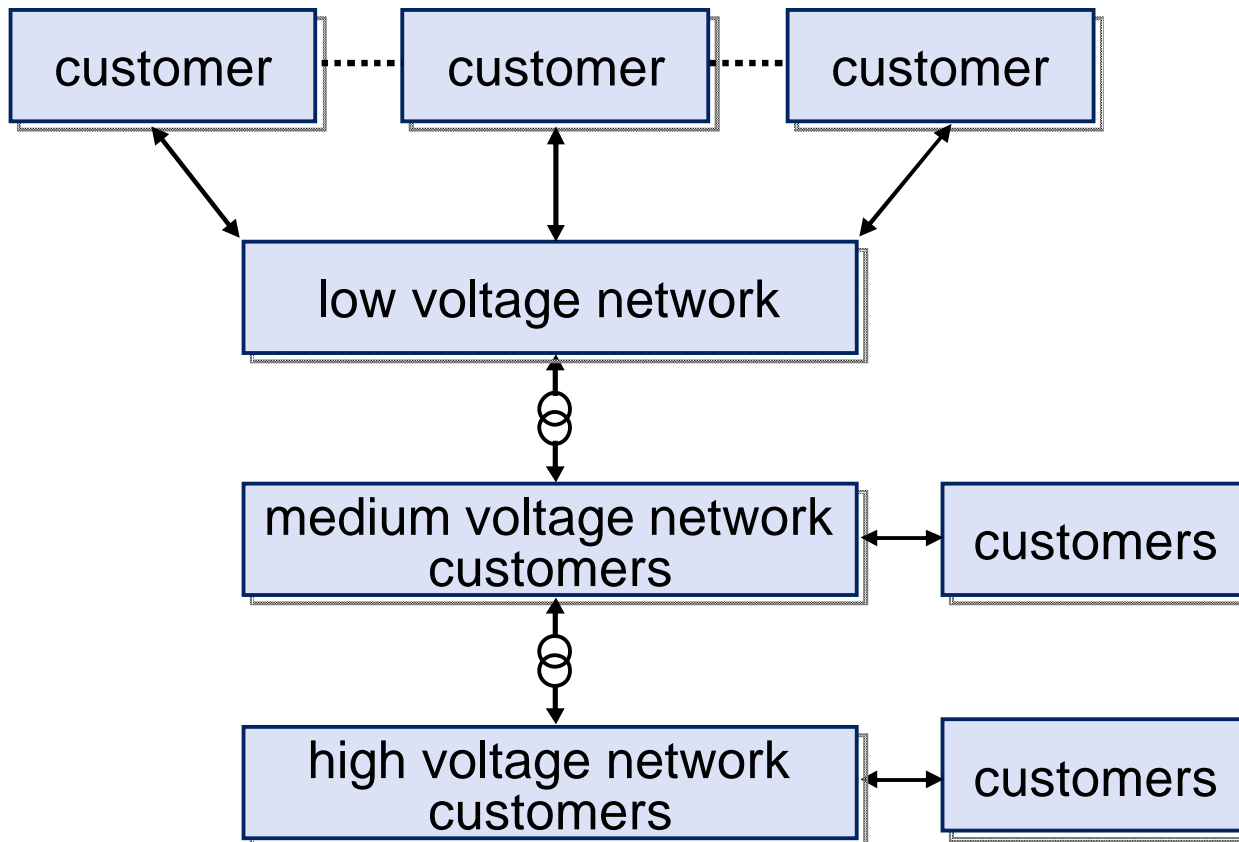
- q **Yesterday:
(passive)**
 - **Unidirectional energy flow**
 - **Last element of energy supply chain**
 - **Uniform supply quality**

- q **Tomorrow:
(active)**
 - **Active partner in energy supply chain**
 - **user**
 - **provider**
 - **Bidirectional energy flow**
 - **Individual supply quality**
 - **Multilateral contracts**
 - **Demand side management**
 - **Demand side response**

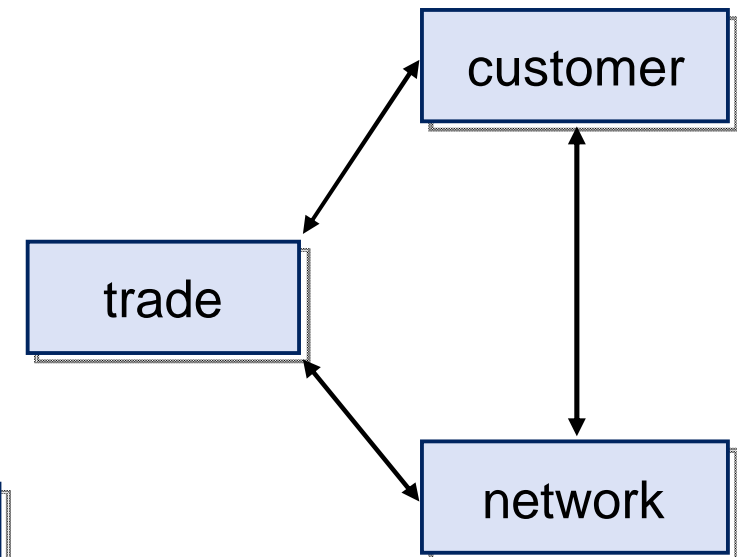


Role of customers

Physical / Technical



Contractual





S M A R T G R I D S

Problems

- q - **Multidirectional communication (horizontal and vertical)**
- q - **New sensors for accurate and reliable information**
- q - **Real time price signals**
- q - **Create market access**
- q - **Create local markets**
- q - **Implement DSM/DSR**



Key deliverables

- q **Incentives:**
 - Increase competition in energy market
 - Active element in energy supply chain
 - Influence on future development
 - Full use of technological development

- q **Barriers:**
 - Business environment not yet defined
 - Financial incentives only for green power
 - Technical challenges concerning network access
 - Communication technology