

## **Smart Regulation for a decentralised Energy Systems and its Local Actors**

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Fostering energy markets, empowering **consumers**.

**GEODE Spring Seminar** 11 May 2017



### **Agenda**

- Anticipating future changes load changes, local generation, demand side and storage
- Implications of dynamic tariffs on load flows
- Encouraging flexibility
- Appropriate incentives
- Local Energy Communities





## **Future changes for networks**

#### Drivers of change

- Renewable support mechanisms
- Cheaper equipment (PV, batteries, etc.)
- More communication Internet of Things

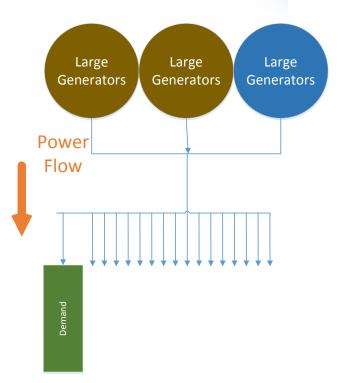
#### Implications of change

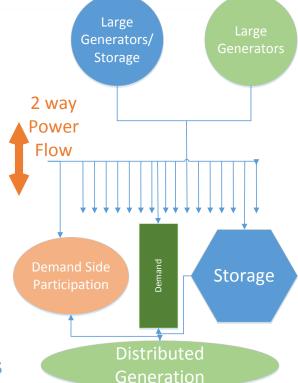
- Change in load flows, loss of diversity
- Increasing obsolescence
- Old incentives no longer applicable
- Clarity on new DSO roles allowed/disallowed





# **Centralised vs Distributed Future for Energy Systems**





- Regulators have balanced approach to developments
- Let markets find the most efficient outcome for consumers
- Ensure that regulation of network monopolies does not predetermine the outcome
- Consumer protection our key yardstick in assessing developments





## **Load Diversity**

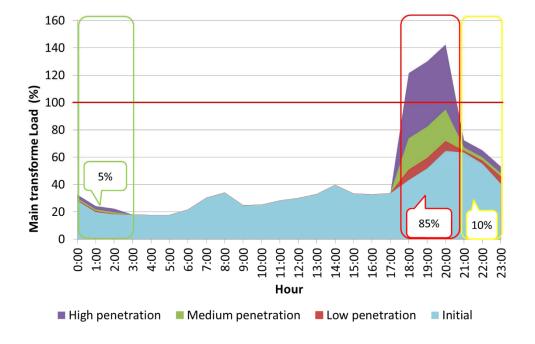
Network Planning based on Load Diversity Assumptions.

New Use of Networks changes Diversity Assumptions:

- Prosumer production - common solar resource

- Changing consumer response eg EVs, storage heaters,

etc.





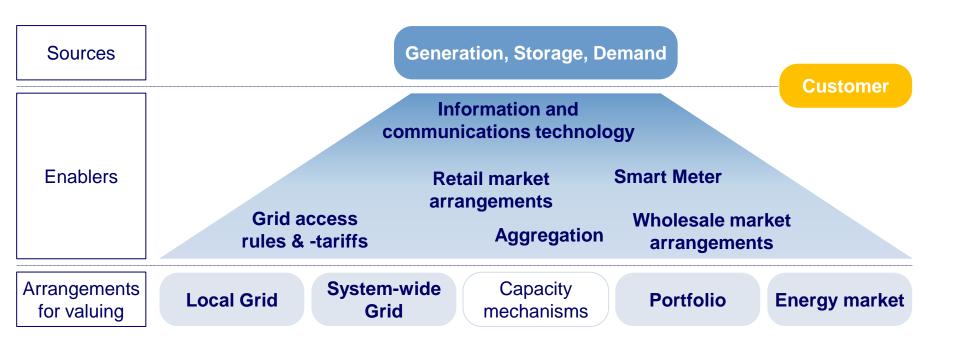


## Flexibility – in context

#### Generation **Markets Arbitrage** Demand -lexibility Flexibility tools Infrastructure **Networks** System operation TSO/DSO coordination Inertia System Services Frequency support Voltage support **Smart metering** Time of Use tariffs Retail **Demand response** Internet of things Electric vehicles



## Flexibility – The Whole Picture







## **Regulatory Incentives for DSO**

New challenges for DSOs in defining effective regulatory models may trigger need for changes in regulatory aims and tools (incentives)

Changing world

 New challenges for DSO due to organizational, technical and economic changes have emerged

Same main concerns

 Some aims such as affordability, sustainability and security of supply remain fundamental regulatory concerns

Shared perspective

 Need for NRAs and stakeholders to share perspectives

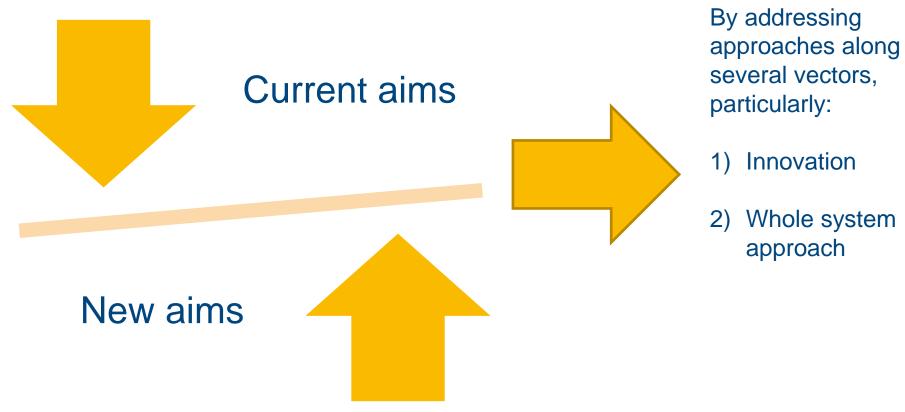
Guidelines of Good practice  Outline guidelines of good practice for designing incentives, applicable to different realities

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## **New Approach to DSO Incentives**

CEER Guidelines of Good Practice will enable NRAs to balance between current and new aims





## **Local Energy Communities**

- Regulatory approach to support fair treatment
- Consumer driven attitude to regulatory treatment:
  - Remove barriers to consumer and community engagement
  - Ensure consumer rights not diminished
  - Seek to avoid cross subsidy across various classes of consumers
  - Network tariffs will need to reflect fair approach





## **European Regulatory Response**

- CEER Paper on DSO Tariffs
- CEER Paper on DSO Incentives
- CEER Paper on DS Flexibility
- Series of CEER White Papers on issues in "Clean Energy for All Europeans" legislative package



## Thank you for your attention!



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