GEODE WORKSHOP

Brussels
20 March 2014

FROM THEORY TO REALITY

Bringing Intelligence to the Grids
Case Studies

GEODE Working Group Smart Grids
November 2013

GEODE
The Voice of local Energy Distributors across Europe
GEODE was founded in 1991

We represent more than 1200 independent Electricity and Gas distribution Companies through single companies and associations

Our Members distribute Energy to more than 100 million people
Members in 14 Countries
Austria
Andorra
Bulgaria
Denmark
France
Finland
Germany
Hungary
Italy
Serbia
Slovenia
Spain
Sweden
UK
Recommendations - Top 10 Actions

1. European Commission, Members States and national regulators must promote customer acceptance of smart metering systems in order to realize the full benefits of Smart Grids.

2. The DSO should retain responsibility for metering as the meter is the logical end point of the DSOs electrical grid (exception made in UK and Germany).

3. DSO should play the role of the neutral regulated market facilitator.

4. DSOs have to be incentivised to invest in innovative and intelligent technology, Smart Grids and Smart Meters as well as in conventional components of the grid. The DSOs, regardless of their size, need to be incentivised to engage in R & D activities connected with smart grid development.

5. National Regulators have to empower DSOs to take an active part in developing Smart Grid solutions through cost reflective network tariffs structure and by allowing DSOs to offer more flexibility in designing the grid tariffs.

6. Standardised open interface, interoperability and metering minimum functional requirements are essential and should be tackled in the Commissions standardization work.

7. DSOs must without restriction be allowed to use information from the Smart Meters in order to fulfil their regulated duties such as system stability and billing.

8. It should be the decision of DSOs which meter reading communication solution (e.g. for communication between the DSO and smart meter) is appropriate within their responsibility area.

9. DSO is the central point of contact for customers in grid related issues and the link between DSOs and the customer should be maintained.

10. European legislation should not prevent national solutions when necessary and cost effective.
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Legal Background – 3rd Energy Package

**Electricity Directive 2009/72/EC**

- “SM at least for 80% of customers by 2020, subject to a cost-benefit assessment on long-term cost and benefits to the market and consumers”

**Gas Directive 2009/73/EC**

- Does not establish a specific deadline for the roll-out of smart meters
€ 400 billion of distribution network investments by 2020

Smart Metering Systems

Integration of distributed energy resources – Smart Grids

Conventional grid infrastructure
Smart Electricity Metering Roll-Out in Europe

- **Going ahead**
- **No Go**
- **No decision yet**

Source: GEODE
## Electricity Smart Meters Roll-out across Europe

### Countries having finalized the roll-out

<table>
<thead>
<tr>
<th>Country</th>
<th>Decision</th>
<th>Finalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>2003</td>
<td>1 July 2009</td>
</tr>
<tr>
<td>Italy</td>
<td>2006</td>
<td>31 December 2013</td>
</tr>
<tr>
<td>Finland</td>
<td>2009</td>
<td>31 December 2013</td>
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</table>
Electricity Smart Meters Roll-out across Europe
Countries that have mandated the smart meter roll-out

<table>
<thead>
<tr>
<th>Country</th>
<th>Decision</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>2012</td>
<td>2019</td>
</tr>
<tr>
<td>France</td>
<td>2013</td>
<td>2020</td>
</tr>
<tr>
<td>Estonia</td>
<td>2013</td>
<td>2017</td>
</tr>
<tr>
<td>Spain</td>
<td>2011</td>
<td>2018</td>
</tr>
<tr>
<td>Ireland</td>
<td>2015 (start)</td>
<td>2019</td>
</tr>
<tr>
<td>Norway</td>
<td>2014 (start)</td>
<td>(2017) 1 January 2019</td>
</tr>
<tr>
<td>UK</td>
<td>(2014 start) Autumn 2015</td>
<td>2020</td>
</tr>
</tbody>
</table>
OVERVIEW ACROSS EUROPE

Smart Gas Metering Roll-Out in Europe

- **Going ahead**
- **No Go**
- **No decision yet**
Member States within Europe are at different stages of Smart Metering deployment and they are moving ahead at different speeds.

Current figures are still low, in particular in the newer European Member States.

In gas, penetration is even lower.
What should be done?

- European Commission, Members States and national regulators must promote **customer acceptance of smart metering systems**
- The **DSO should retain responsibility for metering**
  - In most of countries where a roll-out has taken place or is planned, the DSO is responsible for smart metering deployment and operation
OVERVIEW ACROSS EUROPE

What should be done?

• The DSO has to be allowed by the regulator to finance investments through grid tariffs or other revenue streams
  • Incentive regulation

• Rethink DSOs tariffs structures needed
  • Cost reflective and capacity based network tariffs structure

• The DSOs, regardless of their size, engage in R & D activities connected with smart grid development.
THANK YOU!