

Citizens' Energy Forum

How do DSOs add value for consumers in evolving retail markets?

Fostering energy markets, empowering **consumers**.

Alejandro Alonso – Member of Customer and Retail Market WG London, 17 December 2013



Roles and Responsibilities of DSOs

- The traditional role of DSOs has been network operation and maintenance
 - Developing the distribution grid
 - Grid operation and maintenance
 - Connection of customers
 - Metering and data management in most EU member states
 - Security of supply at local level
 - Safety
- **Currently**, DSOs play a role in the efficient functioning of Europe's energy markets; acting as "gateways" to retail markets. DSOs influence the level of competition, due to their role as neutral providers of Third Party Access services for suppliers.
- In the future, DSOs might be seen as more active players whose role could expand to market facilitation services.





Overview of DSO tasks

"The distribution system operator shall be responsible for ensuring the long-term ability of the system to meet reasonable demands for the distribution of gas/electricity, for operating, maintaining and developing under economic conditions a secure, reliable and efficient distribution system in its area" [Gas and Electricity Directives].

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Grid operation and extension

- Operation & Maintenance
- Meter reading in most EU MS
- Safety and continuity of supply
- ► Connections and grid extension

Traditional role

2

TPA services for suppliers

- ► TPA contracts / relation with suppliers
- Allocation of consumption
- Switching process

Role after electricity / gas Directives

3

Market facilitator for service providers

- Data management
- New technologies: smart meters, smart grids, demand side response, distributed generation, electric vehicles

Additional / new roles ?



Main changes

Technological changes are driving a change in the role of DSOs:

Smart meters

- Huge increase in amount of data
- Ensuring access to consumer consumption data
- New challenges on transparency, data protection and accuracy issues

Smart grid technologies

- Allow much greater active control of the distribution networks
- Increase the potential for load management
- Cyber security issues

Increasing levels of micro-generation and electric vehicles

Will require more active operation of the distribution networks





Will DSOs face increased interaction with energy customers / suppliers?

- Demand response participation is potentially increasing
 - New technology facilitates greater customer involvement
- Increasing levels of data from smart meters will potentially have multiple users
 - Customers, suppliers, data handling companies, other providers of energy services (ESCOs or aggregators)
- Possibilities of new customer services within competitive markets require clear roles and responsibilities for all market actors including DSOs:
 - How data / energy services are provided by regulated DSOs?
 - If third parties are allowed to access data, should they be regulated, and if so how?





2020 Vision for Europe's Energy Customers

- CEER is committed to developing a wide range of actions directed at:
 - Working to ensure the single European market works in the interests of customers
 - Ensuring smart meters deliver benefits for customers
 - Enhancing the role that consumer bodies play in the regulatory process
 - Improving customer information, and ensuring that customers' own metering data are properly protected
 - Seeking to identify and remove barriers to enhance demand response and energy efficiency services



CEER Work in progress

 CEER Draft Advice on regulating the quality of distribution services

Covering electricity and gas DSO customer services:

- Connection
- Disconnection
- Maintenance

Public consultation open until 31 January 2014





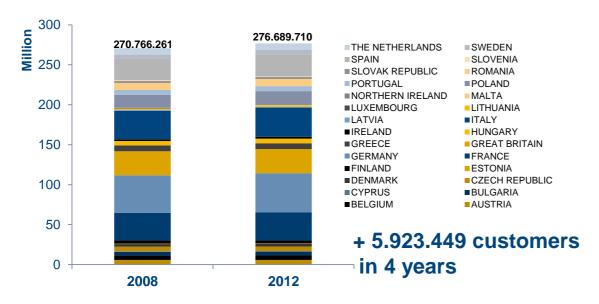
CEER Work in progress

- CEER Draft Advice on regulating the quality of distribution services
 - From a <u>customer perspective</u>, connections, maintenance and disconnections are very relevant processes, as in some cases, they are the customers' first interaction with the energy market.
 - ► If these processes are well designed and functioning well, the customer can engage in the energy market in a positive way.
 - ► The document focuses on the service quality levels provided for the connection of customers, particularly in relation to the duration of the process (time limits) and the management of the relationship with the customer.

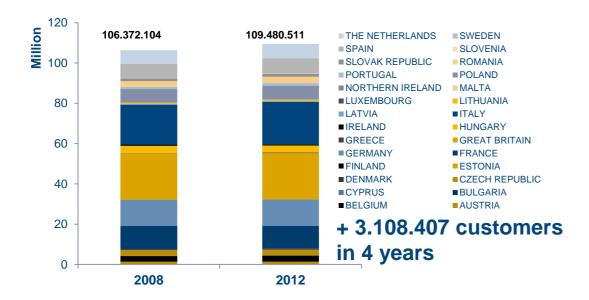


The connection process is very important for European energy customers

276 Million electricity customers



110 Million gas customers



- In the last 4 years, DSOs have connected about 9 million new customers to the gas and electricity grids in Europe
 - > 5,9 Millions in electricity
 - > 3,1 Millions in gas
 - These numbers reflect only the net growth
- Taking into account consumers moving in / moving out, the total number of connections and disconnections is much higher



Service quality levels for connections

New
Connections
(with major
works)



Connections with minor works





- Connecting new houses to the grid may require several visits to conduct works at the customer's premises, works in the street and in some cases, administrative authorisation.
- The time taken and cost to complete a new network connection can vary a lot depending on the physical situation of the new connection point.

- A connection that requires no more than one or two visits to conduct works at the customer's premises.
- The median time taken to connect an electricity customer in Europe is 11 days, with a range between 2 days and 18 weeks. [Ref CEER 5th Benchmarking report on Quality of Electricity supply]



Service quality levels for connections / disconnections

 The public consultation includes questions about the appropriate time limit for each recommendation

Service	Recommendations about	
Connection to the grid	 Time taken to provide the price offer Time taken to connect Time taken to activate energy supply Punctuality of appointments 	two days one week two weeks
Disconnection	 Time taken to disconnect after customer request Time between last notice to pay and disconnection due to non-payment Time taken to reactivate energy supply after disconnection due to non-payment 	



Service quality levels for maintenance, customer information and safety issues

DSOs are responsible for grid maintenance and safety

Service	Recommendations about
Maintenance	 Time of notification of planned supply interruptions Duration limit of a planned supply interruption Information about un-planned energy interruptions
Customer Information and safety	 Accessible information on services and rights regarding connection and disconnection Accessible information on correct installation handling including safety measures Telephone number for emergencies



Future CEER work

- In 2014, CEER intends to examine further the developing role of DSOs
- This will include the role of DSOs in encouraging the development of new services (and service providers) to empower customer participation in energy market.
- CEER advice on regulating the quality of DSOs customer services
- CEER advice on data management in the retail markets
- Benchmarking report/case study on demand response and energy efficiency services



Conclusions

- DSOs bring value to customers when:
- They provide high quality service standards to customers (grid operation, maintenance, grid connections, ...)
- They enable competition among retailers
- They carry out tasks in a cost-efficient way

Thank you for your kind attention

Visit: CEER Energy Customers



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Key questions



- The current role of DSOs influences the perception of gas and electricity services by customers:
 - Do you think the current performance of DSO services (connections, disconnections, continuity of supply, grid integrity) meets customer expectations (quality, affordability)?
 - What are the areas for improvement?
 - Cost efficiency and reliability?
 - ► How to ensure service standards are met?
 - Incentive regulation?
 - Compensation payments to customers?
 - What kind of regulation is needed to ensure DSO neutrality when acting as market facilitator and a cost efficient operator?
 - Will the current unbundling requirements be adequate?



Key questions



- Technological changes are driving a change in the role of DSOs. This raises a number of questions:
 - What are the main principles for data management and data protection from a customer perspective?
 - How should the management and protection of data be regulated?
 - What tools are necessary to enable better data exchange between market participants to the benefit of end-customers?
 - Definition of standardised data format and data exchange?
 - Should all these rules be purely national?
 - Extension of harmonised interoperability rules to retail level?
 - How to facilitate demand response from customers and new energy services?
 - How to deal with the effects of declining consumption on retail infrastructure? How to promote grid extension (gas) in new areas?