

Internal Energy Market. Retail market design & demand response

Manuel Sánchez, Ph.D
Team Leader Smart Grids
European Commission
DG ENER – Internal Energy Market

GEODE



Brussels, 13 May 2013

EU to play a role in retail market design



Distribution and retail are key market segments for low carbon energy in EU

EU has developed an energy policy to empower consumers

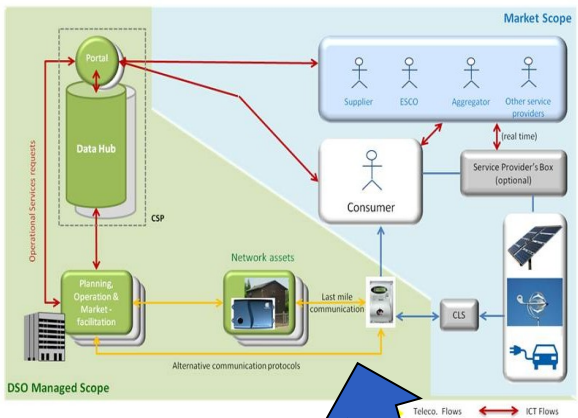
EU has unique role in shaping, reshaping and rethinking to design of IEM



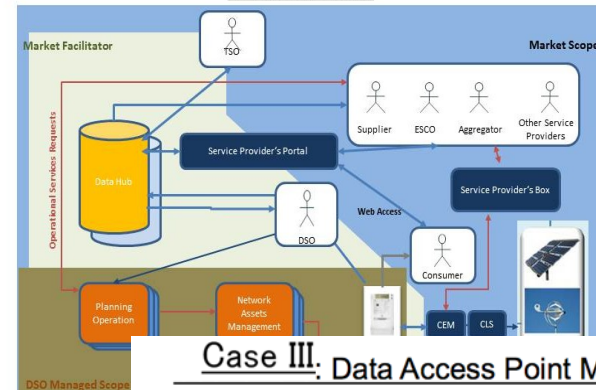
European
Commission

Smart Grids Task Force: Evolution of data processing and business models

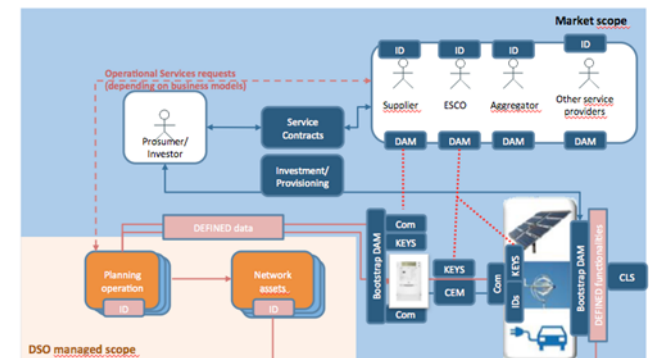
Case I: DSO as Market Facilitator



Case II: Third Party Market Facilitator (Independent Central Hub)



Case III: Data Access Point Manager (DAM)

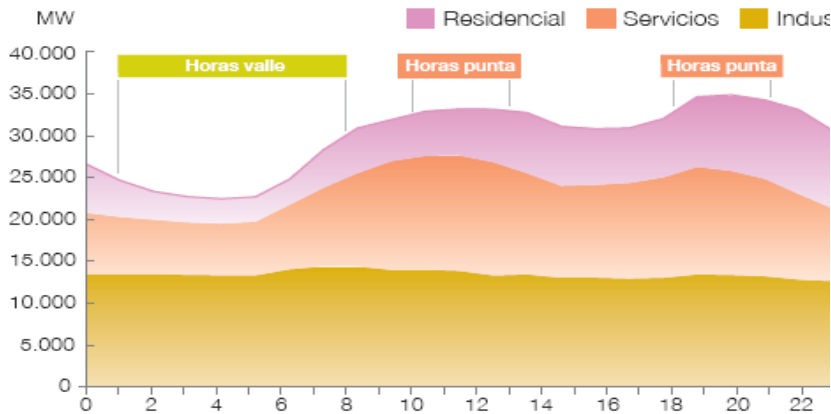


CEM: Customer Energy Management
CLS: Controllable Load System

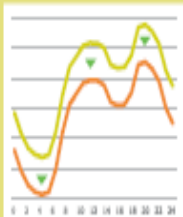
— Data flow according to service contracts
— Data flow following regulatory needs

Demand Response is a market instrument

Consumo horario en un día de invierno

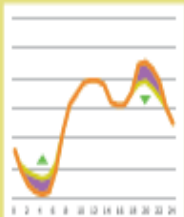


1 Reducción del consumo



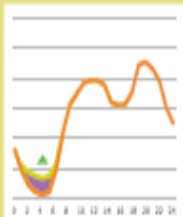
- Mejora en la eficiencia de equipos y procesos.
- Concienciación sobre el ahorro energético.

2 Desplazamiento del consumo de la punta al valle



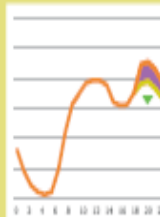
- Discriminación horaria.
- Respuesta a los precios del mercado.

3 Llenado de valles



- Centrales de bombeo.
- Tecnologías de almacenamiento.
- Recarga de vehículos eléctricos.

4 Reducción del consumo en las horas punta del Sistema



- Servicio de interrupibilidad.
- Gestión automática de cargas.

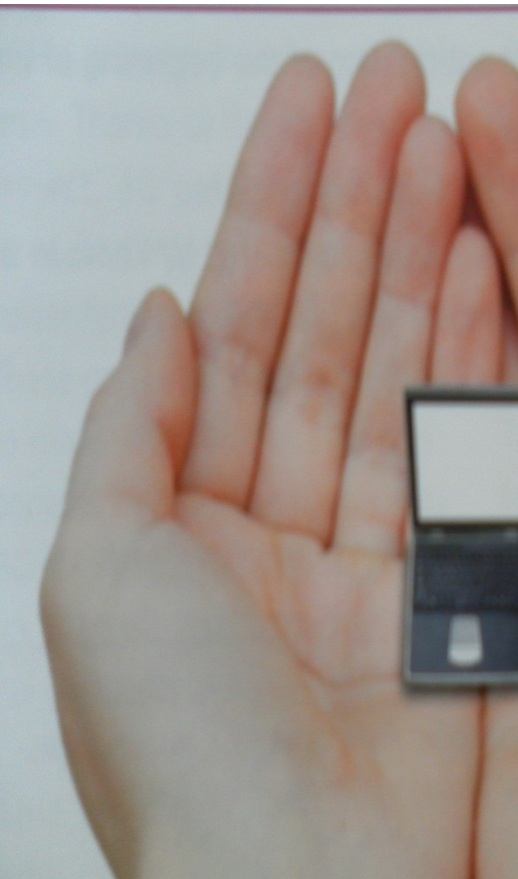
Flexibility

Voluntary

Compensation

Saving bill & energy

Key challenges for DR as market instrument



Bringing technology into the market

Creating market-based and transparent incentives

Opening up the market to exploit the potential of DR

Creating a fully functioning smart retail market

with active demand side in mind



Non-discriminatory entry and freedom to provide services and consumer confidence



Non-discriminatory procurement of flexible sources



Non-discriminatory access to relevant data on consumption (consumer consent) and network congestion

Rethinking the roles and responsibilities of DSOs

Proposed topics for discussion



Guidelines for remuneration and network charges for DSO

Define the minimum level of consumer data availability

Guidelines on measures to reinforce Chinese walls between any DSO and DER-related business under the same holding

Define DSO-TSO interaction in compliance with network codes



manuel.sanchez-jimenez@ec.europa.eu

http://ec.europa.eu/energy/index_en.htm

http://ec.europa.eu/energy/gas_electricity/smartgrids/taskforce_en.htm