

Directorate-General  
for Energy  
and Transport



# Task Force for the implementation of Smart Grids

European Commission DG TREN  
Directorate C- Security of supply and energy markets



EUROPEAN  
COMMISSION



# Content

- **The MISSION Paper (Terms of Reference)**
- **The VISION and TASKS**
- **The initial Working Groups**

# ● **Third Energy Package – main regulatory measures**

- **Stronger powers for national regulators**
  - » Monitoring, investigations, enforcement
- **Regulatory Agency at EU level (ACER)**
  - » Co-ordination of national regulators, Advice to Commission
- **Effective unbundling of networks**
  - » Ownership Unbundling, ISO, ITO
- **Cooperation of network operators (ENTSO)**
  - » Development of harmonised network rules
- **Retail Market measures**

# ● Regulators...

## General Objectives of the regulatory authority (Art 35)

promoting, in close cooperation with the Agency, regulatory authorities of other Member States and the Commission, a competitive, secure and environmentally sustainable internal electricity market within the Community

...ensuring appropriate conditions for the effective and reliable operation of electricity networks, taking into account long-term objectives

...ensuring that system operators and system users are granted appropriate incentives, in both the short and the long term, to increase efficiencies in system performance and foster market integration;

# ● Tasks of TSOs

## Tasks of transmission system operators (Art 12)

ensuring the long-term ability of the system to meet reasonable demands for the transmission of electricity, operating, maintaining and developing under economic conditions secure, reliable and efficient transmission systems with due regard to the environment;

# ● Duties of DSOs

## Tasks of distribution system operators (Art 25)

The distribution system operator shall be responsible for ensuring the long-term ability of the system to meet reasonable demands for the distribution of electricity, for operating, maintaining and developing under economic conditions a secure, reliable and efficient electricity distribution system in its area with due regard for the environment and energy efficiency.

# ● **Retail Market Issues: a major role for the DSO**

- **Published rules on the roles and responsibilities of all market players**
- **Information for consumers: European Energy Consumer Checklist**
- **New deadlines on switching, 3 weeks, and receipt of final bill, 6 weeks.**
- **Consumer access to consumption data**
- **Implementation of Smart Metering**
- **Promotion of Smart Grids**

# ● Rollout of Smart Metering

- Strong support from the European Parliament
- Declaration by the European Commission to help with interpretation
- Assessment before 3rd September 2012 of long term costs and benefits
- Those positively assessed to be installed within 10 years...
- Otherwise: 80% by 2020.
- First step towards Smart Grids

# ● Statements on Smart Grids

Directive 2009/72/EC of 13 July 2009

## □ Recital 27

Member States should encourage the modernisation of distribution networks, such as through the introduction of smart grids, which should be built in a way that encourages decentralised generation and energy efficiency.

## □ Article 3, 11

In order to promote energy efficiency, Member States, or where a Member State has so provided, the regulatory authority shall strongly recommend that electricity undertakings optimise the use of electricity, for example by providing energy management services, developing innovative pricing formulas or introducing intelligent metering systems or smart grids, where appropriate.

□ **Annex I:** Measures on Consumer Protection and preventions for the smart meters assessment by 2012 and roll-out by 2020.



# ● Why Smart Grids? The Drivers

- Present EU policies require Member States to implement changes to the grids. Smart Grid solutions embrace the changing structure of generation, the market and the use of electricity
- The implementation of more active transmission and distribution systems in the form of Smart Grids is central to the deployment of the internal market for energy.
- This evolution is a complex subject and requires a coordinated approach addressing various issues and all the actors

## ● Why EU level? The EU added value- 1/2

- The Third Package's provisions for rollout 80% of Smart Meters in Europe by 2020 represent an innovative regulatory framework, unique worldwide, towards the Smart Grids.
- Beyond this first step, there is a need to **develop the European policy and regulatory** directions to drive forward the implementation of Smart Grids.

## ● Why EU level? The EU added value – 2/2

- The Third Package's provisions to encourage the long term modernisation of the grids across Europe are to be transposed by Member States.
- **Coordination of initial efforts at European level** to exploit synergies and consistency among regulatory authorities, regulated companies, end users and technology providers would help.

## ● The Mission of the Task Force

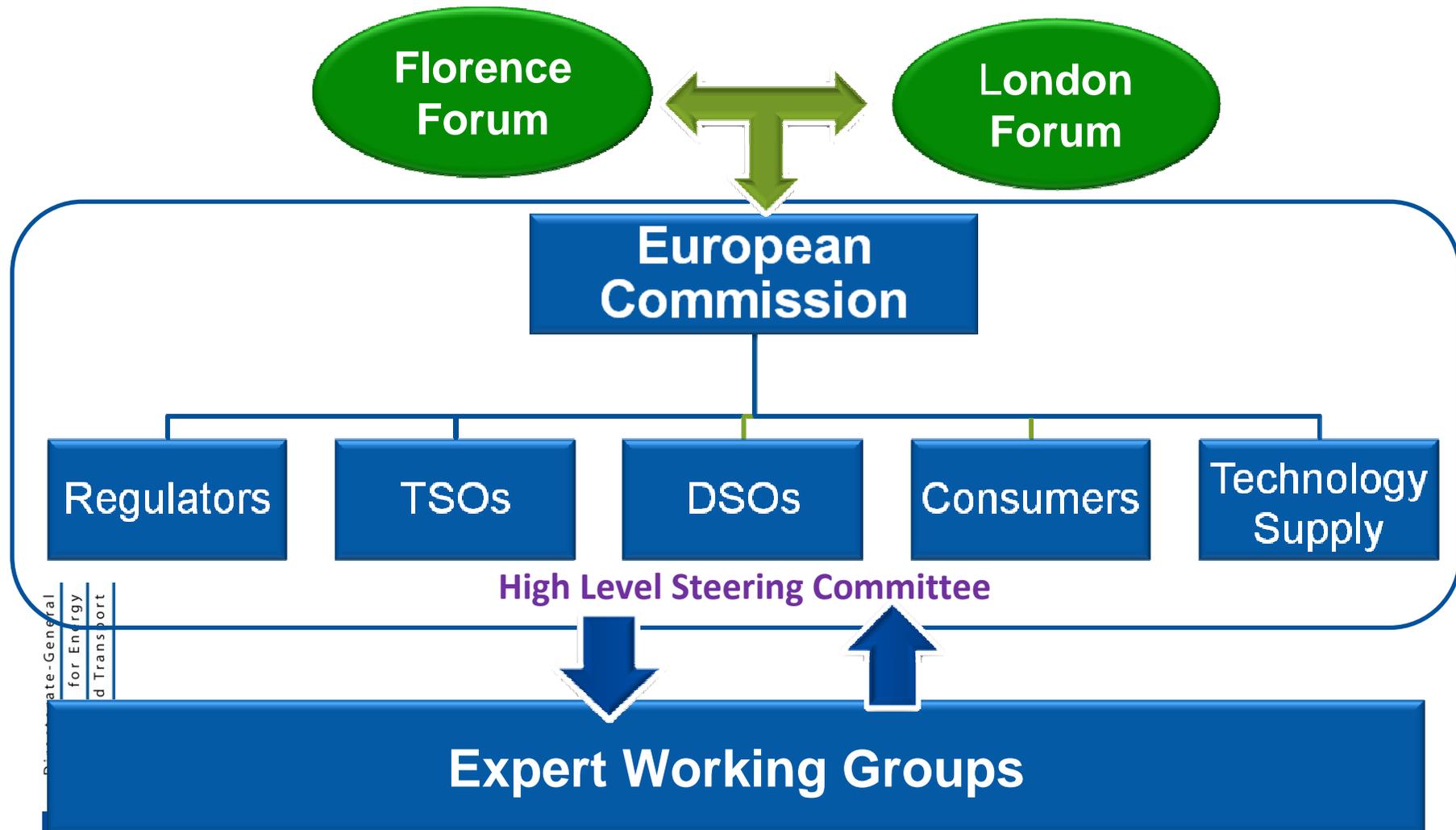
**Advice the Commission on policy and regulatory directions at European level and to coordinate the first steps towards the implementation of Smart Grids under the provision of the Third Energy Package.**

## ● Participants in the Task Force

### Composition:

- **Steering Committee**, based on high level representation from European, institutional and market actors, including consumers.
- **Expert Group/s**, as decided by the Steering Committee.
- **European Commission** will chair and provide secretariat

# ● Task Force for Smart Grids



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# ● Task Force Steering Committee

- Chair and secretariat: **European Commission**
- Regulators: **ERGEG-e**
- TSOs: **ENTSO**
- DSOs and Suppliers: **CEDEC, DSO Club, EURELECTRIC and GEODE**
- Consumers: **ANEC, BEUC**
- Standards: **CENELEC**
- Technology Suppliers:
  - Power sector: **EREC, EUTC and T&D Europe**
  - ICT sector: **DIGITALEUROPA and ECPE**
  - Smart Meters : **ESMIG**



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## ● Specific objectives and deliverables

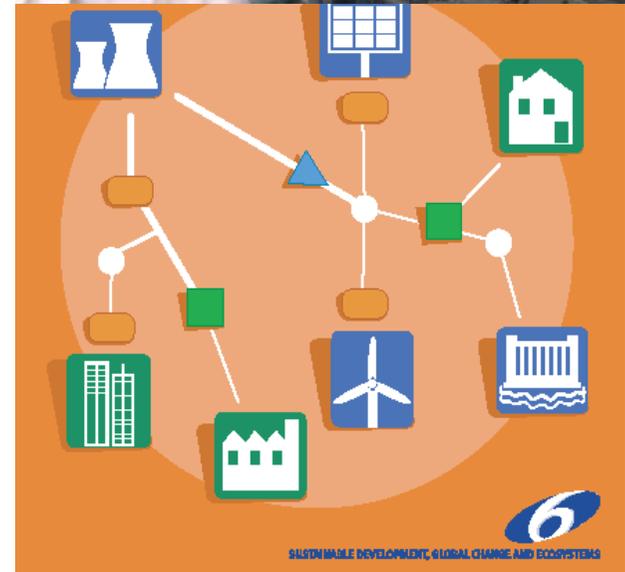
1. Produce a common vision in conjunction with institutional actors and key stakeholders for the implementation of Smart Grids.
2. Identify the strategic decisions and regulatory recommendations for EU-wide implementation of Smart Grids.
3. Produce a strategic Roadmap for the implementation of Smart Grids and Smart Meters into the European internal market.

# ● What are “Smart Grids”?

- European Technology Platform defines Smart Grid as *an electricity network that can intelligently integrate the actions of all users connected to it – generators, consumers and those that do both- in order to efficiently deliver sustainable, economic and secure electricity supplies*
- The grid becomes “**smart**” because it not only transport electricity but also information will therefore become an active part of the electricity supply system

# ● “Smart Grids” : digital grid

- Digital switching networks
- Remote sensing and monitoring in wires and transformer centres
- Fault detection
- Devices for automated fault repair
- Embedded distributed intelligent at retail market level



# ● “Smart Grids”: key functionalities of regulatory relevance

- Transactive coordination of the system
- Interconnection of Distributed Energy Resource
- Integration of “Prosumers”
- Demand response automatisisation to dynamic prices and variable incentives



## ● Specific objectives and deliverables

1. Produce a common vision in conjunction with institutional actors and key stakeholders for the implementation of Smart Grids.
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## Task 2. Key Deliverables

- 1. Define policy and produce recommendations for a new regulatory scenario with almost real time prices signals and incentives which allow consumers to active participate in the retail market**
- 2. Produce a set of minimum functionalities for Smart Meters that enables and assists consumers in managing their energy consumption/production (Consumer participating in generation scenario) as well as ensures consistency with the provisions of the Third Energy Package.**
- 3. Identify the appropriate regulatory scenario and recommendations for data handling, safety and consumer protection.**
- 4. Recommend the roles and responsibilities of all actors involved in the implementation of Smart Grids, such as regulators, DSOs, distributed generation suppliers, equipment suppliers, household appliances suppliers, consumers etc.**
- 5. Recommend criteria and recommendations for funding Smart Grids deployment though grid tariffs or other regulatory means.**



## ● Making it happen - Specific objectives and deliverables

1. Produce a common vision in conjunction with institutional actors and key stakeholders for the implementation of Smart Grids.
2. Identify the strategic decisions and regulatory recommendations for EU-wide implementation of Smart Grids.
3. Produce a strategic Roadmap for the implementation of Smart Grids and Smart Meters into the European internal market.

# ● Main Milestones





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# ● Initial Working Groups to identify issues of regulatory relevance. Examples:

## 1. Regulatory Functionalities for Smart Meters

Minimum functionalities which should have the Smart Meters to enable consumers in managing their energy bill, meanwhile ensures consistency with provisions of 3rd Package, specially Annex 1 – Measures on Consumer Protection.

## 2. Regulatory recommendations for data handling, safety and data protection

Identify the appropriate regulatory recommendations for data handling, safety and consumer data protection.

## 3. Recommend the roles and responsibilities of all actors involved in Smart Grids

Recommendations on who does what and interrelations to deploy the vision, including recommendations for funding through regulatory means.



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