

Reliability and Security of Supply in Electricity Markets

**Fernando Lasheras
EURELECTRIC**

**SESSA Conference on Investments for Sustainability
Madrid, 19 May 2005**

Index of the presentation

- **EURELECTRIC**
- **Compatibility between market and SOS**
- **Terminology.**
- **Roles and responsibilities**
- **Investments**
- **Concluding remarks**

EURELECTRIC

- **Association whose mission is to represent the European Electricity Industry at Expert, Strategic and Policy-making level**
- **Different types of Members: 30 Full, 11 European Affiliate and 7 Mediterranean**
- **Current Key priorities include:**
 - To support the process of energy market liberalisation
 - To contribute to the pan-European Integration of the electricity industry
 - To foster the integration of a sustainable development approach in electricity industry policies

QUESTION TO BE SOLVED

**Are Security of Supply requirements
compatible with LIBERALISATION and
INTEGRATION of Electricity Sectors?**

Yes, But...

Yes, But...

- **Roles have changed and there are new actors so →
We need to assign and coordinate roles and responsibilities in the new Scenario**
- **Systems are becoming more integrated →
This means additional mutual support both in normal and emergency situations, contributing to an overall increase in security of supply.**

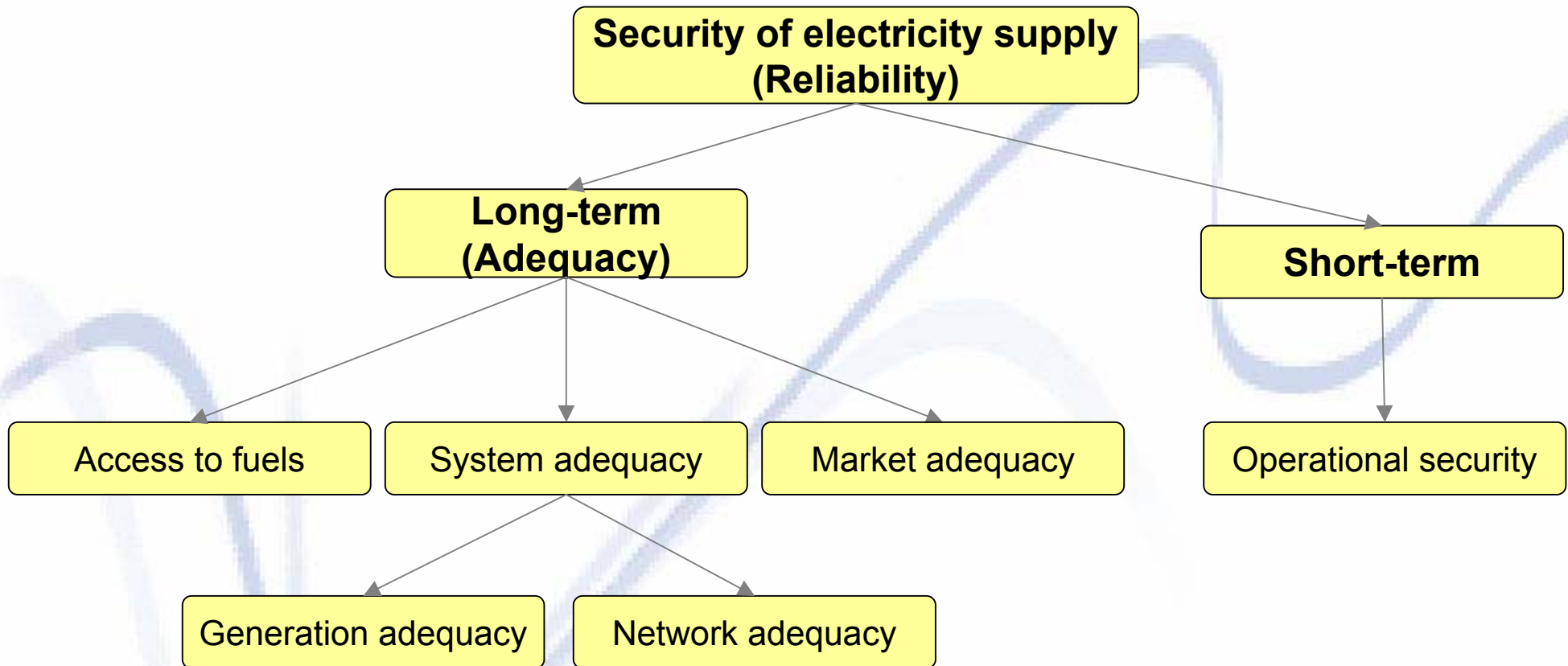
Security of electricity supply: a definition

- **Security of electricity supply is the ability of the electrical power system to provide electricity to end-users with a specified level of continuity and quality in a sustainable manner.***

* relating to existing standards and contractual agreements at the points of delivery



Aspects of security of electricity supply



**SECURITY OF ELECTRICITY SUPPLY IS NOT A SIMPLE ISSUE
BUT A COMPLEX INTERACTION OF SEVERAL FACTORS**

Roles and responsibilities for the EU

- **Develop and maintain a wise geopolitical agenda in order to facilitate access to primary fuels**
- **Keep all energy options open**
- **Monitor implementation of liberalisation package and ensure that market can function freely**
- **Create a harmonised framework for determining the necessary cross-border interconnection capacity**

Roles and responsibilities for Member States

- **Develop and maintain a wise geopolitical agenda in order to facilitate access to primary fuels**
- **Keep all energy options open**
- **Implement liberalisation package and ensure that market can freely function**
 - » Ensure a stable and predictable regulatory framework
 - » Develop liquid wholesale energy markets with no price caps as the primary tool for generation adequacy
 - » Only if necessary, use capacity mechanisms (preferably market based)
 - » Allow for longer-term contracts
 - » Allow for customer response mechanisms, such as interruptible contracts
- **Shorten / facilitate authorisation procedures**

Roles and responsibilities for regulators

- **Ensure stability and predictability of regulatory regime**
- **Consult market actors before introducing measures**
- **Provide adequate economic incentives for network operators**
- **Approve network operational rules proposed by TSOs**
- **Facilitate and safeguard the functioning of the market**
- **Shorten lead times for permitting**
- **Create the market framework for system operators to purchase generation reserves and other ancillary services**

Roles and responsibilities for system operators

- Propose network operational rules
- Ensure network adequacy and real-time balancing
- Ensure non-discriminatory and transparent access to the grid
- Ensure safe and reliable operation of their respective systems
- Monitor system adequacy (both network and generation) taken into account integration with other systems– but not responsible for generation adequacy

Roles and responsibilities for producers

- **Fulfil contractual obligations towards their customers**
- **Provide data for system adequacy monitoring, without revealing commercially sensitive information**
- **Fulfil contractual obligations towards networks**
- **Respect corresponding market and competition rules**
- **Adhere in all their business to highest standards of probity, honesty and fair dealing**
- **Provide ancillary services under market conditions**

Investments

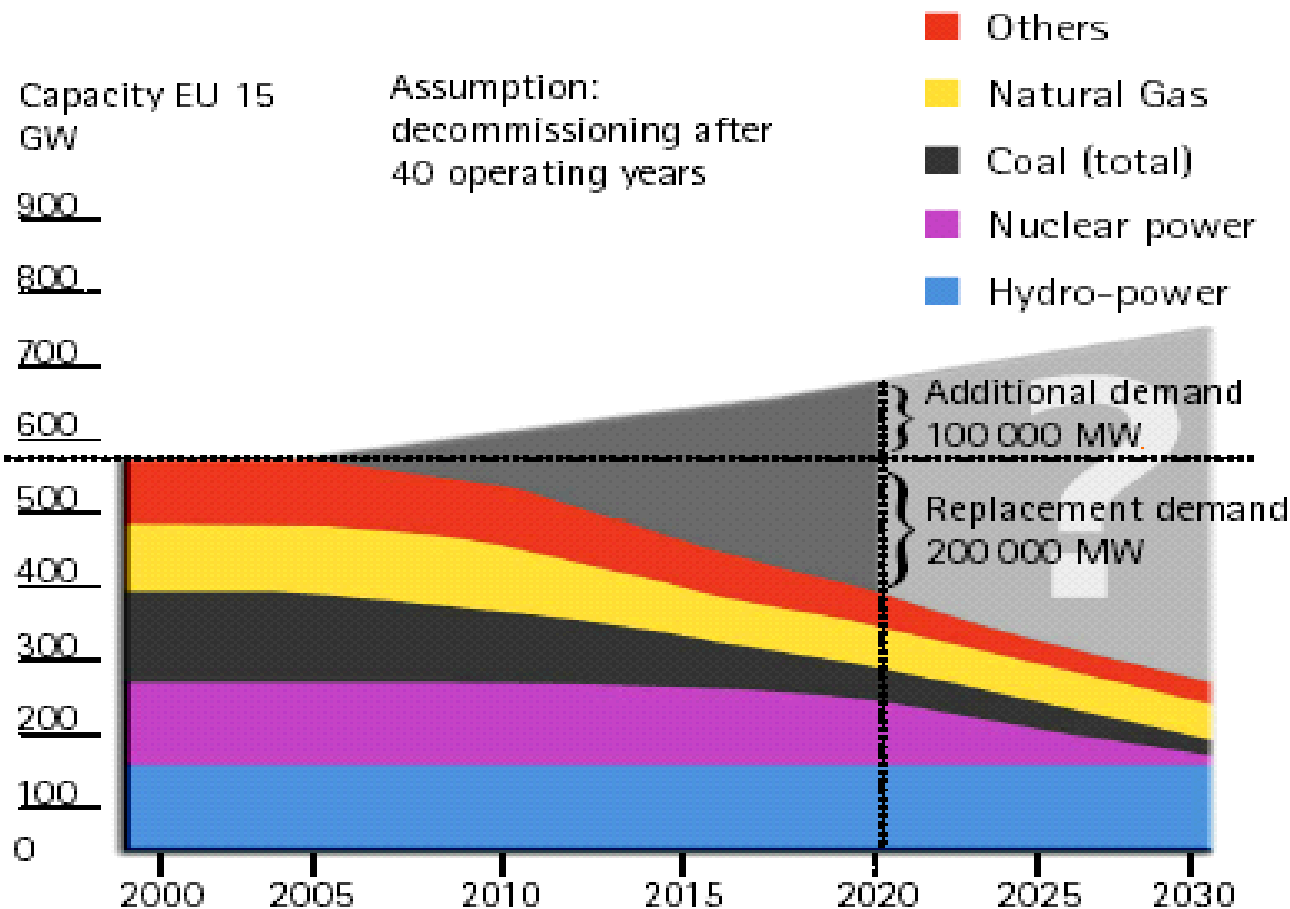
- **To keep supplying electricity at high standards, the ESI needs to invest in the coming years in:**
 - Production
 - Transmission
 - Distribution
- **General conditions of sufficiency and regulatory stability are a prerequisite to promote investments in all activities.**

Investments in the regulated business

- **In Transmission, most of the new investments are going to be regulated:**
 - Increase cooperating among TSO for the identification and financing of new investments.
 - New interconnections to be based on economic grounds (including improvement in security of supply)
- **In Distribution, revenues and incentives must compensate current activities and allow for expansion**



Development of the power plant portfolio in Europe EU15 from 2000 to 2030



**~ 300 GW
capacity gap 2020**

**~ 500-600 GW
capacity gap 2030**

Producers in a competitive world

- **Industry strongly committed to maintaining high standards of security of supply for its customers**
- **But we live in a competitive world, therefore producers cannot be responsible for:**
 - » **investing if market is not attractive**
 - » **operating a plant if it is not profitable**
 - » **keeping reserves without remuneration from market**
 - » **providing ancillary services without remuneration from market**
 - » **revealing commercially sensitive information**

YET

- **All contractual obligations shall be fulfilled**

SESSA Conference on Investments for Sustainability. Madrid 19-20 may 2005

Concluding remarks

- **Security of supply requirements consistent with liberalisation objectives**
- **New definition of roles and responsibilities**
- **Create an attractive business climate and ensure regulatory stability are conditions for investments in all activities**
- **Better Generation adequacy will be achieved if:**
 - » allow and encourage the market to function
 - » keep all energy options open
- **Continue creating the single European market**
- **Industry committed to high standard of security of supply**