

Energy Regulatory Office

ITSMO

(Independent Transmission
System and Market Operator)

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Role of Independent TSO in Market Environment

- Provide non-discriminatory **Third Party Access** to all Market Participants

- Reliability and **Security of Supply**



Functions of ITSMO

Transmission Asset Owner
- Grid Ownership (GO) –
- Transmission Operation (TO) -

- TO Maintain/Operate network assets
- GO Planning/Investing in new network assets
- Provides TPA in transparent non-discriminatory way

- Reliability of Supply
- Real Time Dispatch & Control in accordance with Grid Code provisions
- Physically balances power system. Operates Balancing Market and makes provisions for ancillary services

System Operator (SO)

Market Operator (MO)

- Financial settlements & Clearing
- Congestion Management including Interconnections
- Maintains capacity register and administers CAC
- Recording and market clearing of all bilateral contracts



Law Provisions of ITSMO - TSO

- Transmission System Operator *is responsible for:*

- Maintaining Security of supply
- Providing provisions for non-discriminatory access for all users

- Operating, Maintaining & Developing transmission system and interconnection with other systems
- Ensuring Technical Standards of System in compliance with Technical Codes
- Proposing long-term and annual energy balances to the Ministry after consultation with ERO
- SO operates in real time the Balancing Mechanism to take into account Congestion Management
- Manages Interconnection Capacity
- Preparing: *Grid Code*

Electricity Standards Code
Electrical Equipment Code
Metering Code

ERO
Approval



Law Provisions of ITSMO - MO

- Market Operator *responsible for:*

- Organization and administration of trade in electricity
- Financial Settlements

- Effective market clearing of all bilateral contracts
- Operating the Capacity Market
- Accepting from and processing to relevant parties relevant information
- Establishment of the Market Rules - *ERO Approval*



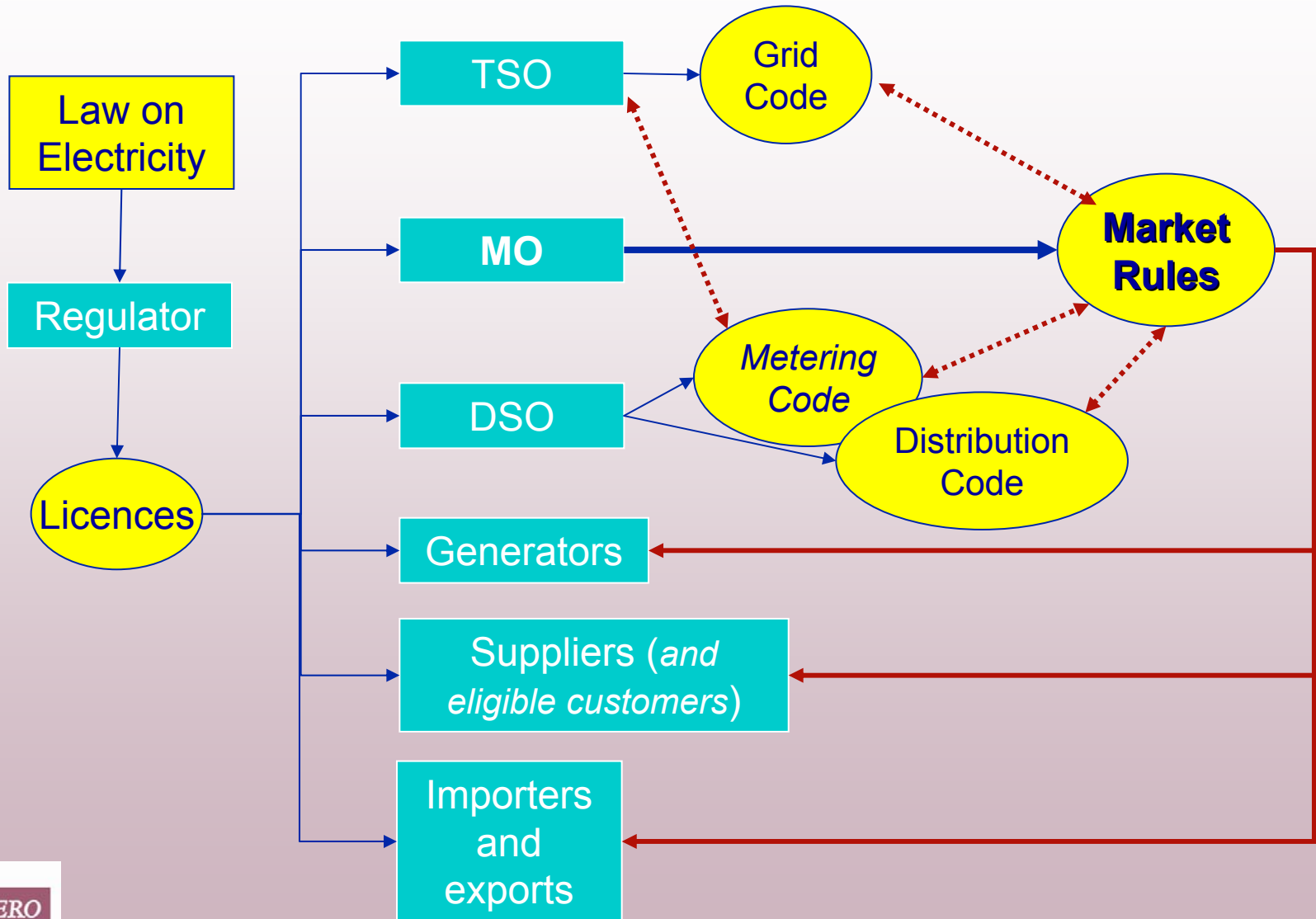
Form of ITSMO

EC Guidelines on Directive 2003 / 54 – 55

“The Unbundling Regime” 16.1.04

- **A separate network company**
- **Unbundled in functional terms of supply/generation company, and has to ensure the necessary independence from the parent company**
 - **Legal** = *New entity / independent “Decision making”*
 - **Functional** = *Management Separation / Compliance Programme / “Chinese Walls” – Confidentiality*
 - **Accounting** = *Importance of accurate cost allocation*

Legal Framework

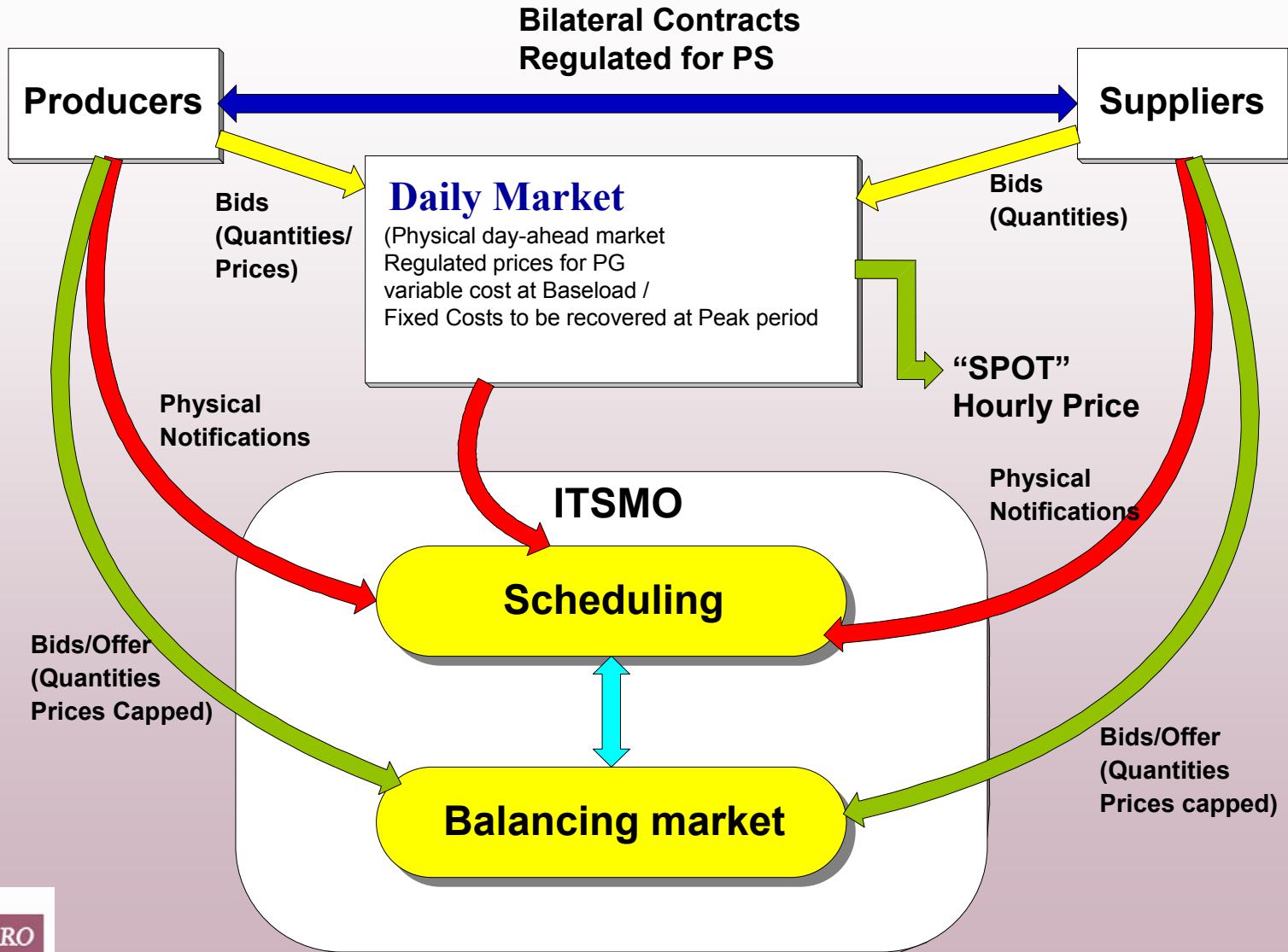


Market Type – Net Pool with Capacity Payments

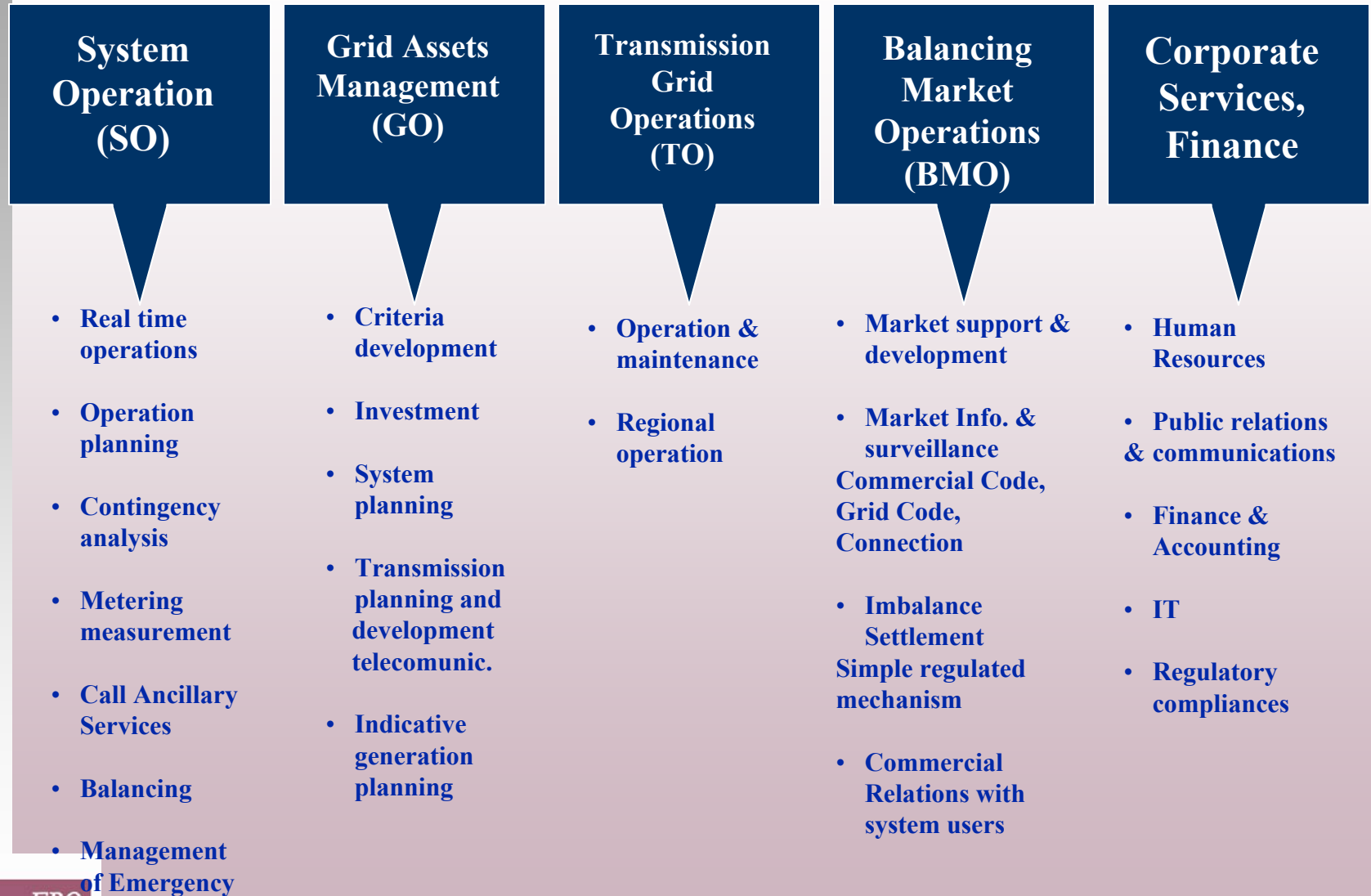
- **Most of energy settled through bilateral contracts, which defines energy bought/sold in MWh in each settlement period (1 hour)**
- **Self Dispatch**
- **Mechanism for residual balance, while residual imbalances go into settlement**
- **Incentives to Balance through ex-post imbalance pricing**
- **Balance Mechanism – trade between generators and TSO through bids and offers where demand side can also participate – Price Caps set by ERO at variable costs of units.**
- **Generators declare availability through CACs and then they sell to the suppliers, which have an obligation of demand e.g. + 20% of their peak load**
- **Penalty to be avoided for lack of Certificates ?**
- **Importers/Exporters award/acquire certificates for each MWh**



Market Design - Net Pool



ITSMO Organizational Structure



ITSMO tariff methodology (UoS charges)

- **Transmission Network Use of System (TNUoS) charges (“network provision charges”)**
 - recover costs of operating transmission network
 - recover depreciation and return on new common network investments
 - recover actual financing costs of existing assets, if ITSMO required to pay debt service or dividend on these
 - applied to load customers on €/MW peak basis
 - net revenue from congestion management/inter-TSO mechanism offset against allowed revenues recovered from TNUoS charges
- **Balancing Services Use of System (BSUoS) charges (“system management charges” and “system balancing charges”)**
 - recover forecast ancillary service purchase costs
 - pass-through of net balancing costs of SO – settled monthly
 - applied to generation and load customers on €/MWh basis
 - sliding-scale incentive mechanism for pass-through of BSUoS costs (with upper and lower limits)

ITSMO tariff methodology (other charges)

- MO costs

- recover allowed costs of MO function
- applied to generation and load customers on €/MWh basis

- Connection charges

- ‘deep’ connection charging applies to all new transmission users
- signals costs of locational decisions, removing need to incorporate these into TNUoS charges
- principles for connection charge calculation to be approved by ERO
- disputes over charges to be resolved by ERO

First ITSMO price review

- **Allowed ITSMO revenues from TNUoS and MO charges determined by ERO**
- **Set as three-year revenue-cap with reopeners**
- **ITSMO then submits tariff application**
- **Provisional timetable**
 - Mar 2006 – submission of data by ITSMO
 - May 2006 – ERO draft decision on allowed revenues
 - Jul 2006 - ERO final decision on allowed revenues
 - Aug 2006 – tariff application by ITSMO
 - Oct 2006 – ERO decision on tariff application
 - 1 Jan 2007 – new tariffs take effect
- **Timing is dictated by current TA to ERO, ESTAP III tariffs study (finishes Aug 2006) and intent of matching tariff year to financial year (start Jan 2007)**



Interim ITSMO tariffs

- **ITSMO applies for tariff to recover operating costs only**
 - subject to review by ERO
 - OPEX of ITSMO does not allow depreciation of assets
- **No requirement to separate between cost centres**
- **Tariff charged on simple €/MWh basis, exiting TS**
- **Timetable in Pricing Rule applies**
 - 45-day review by ERO
 - 15-day notification period between ERO decision and effectiveness
- **Interim application must be submitted by 1 November 2005, to take effect by 1 January 2006 and will be valid for one year expressed within the framework contract between KEK and ITSMO**

Framework Contracts (ITSMO-KEK)

- **Rights and Obligation**

- operation planning and power system control as UCTE criteria (*Scheduling – as it is now*)
- ensuring secure and quality supply of electricity to consumers
- cooperation in terms of maintenance and protection of power facilities
- cooperation in implementation of the actual/future projects
- continuing with mutual cooperation and coordination regarding participation in international organization, bodies and projects
- mutual cooperation, coordination and collaboration in field of legal personnel issues (corporate issues)
- any other issues which deemed to be contracted between parties

Determination of the required revenues for ITSMO expressed in the form of lump-sum
(temporary tariff issued by ERO for 2006
+ revenue from CBT)

Priority Infrastructural Projects of ITSMO

- **Necessary projects to be followed by ITSMO:**
 - **Rehabilitation of metering system in the boundary between TSO and DSO**
 - **SCADA EMS system**
 - **400/110 kV Peja – substation**

Support to ITSMO – TA projects

World Bank - “ESTAP III”-Establishment of ITSMO

- Development of the Grid Code
- Transmission Policy Framework (*Role of TSO in Market Operation and in Congestion Management*)
- Institutional Design (*Organizational Design, Performance Indicators, Commercial Agreement*)

EAR Project Operationalisation of ITSMO

- Market Analysis Forecast
- Survey of the present state of the transmission network and investment requirements
- Financial and Accounting
- Market Operation
- Accounting/treasure function
- Investment and Development Programme
- Business Plan
- Human Resources Development
- Development of Quality Management System (QMS)
- Long-term and annual power plans