

**ENERGY REGULATORY COMMISSION  
OF THE REPUBLIC OF MACEDONIA**



# ***REGIONAL ENERGY MARKET IN SOUTH EAST EUROPE***

**NARUC Energy Regulatory Partnership Program**

***ERC, R. Macedonia- PSB, Vermont***

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# THE ATHENS PROCESS

## ■ WHAT IS THE ATHENS PROCESS ?

▶ The Athens process represents all activities, events and bodies that function for the development and establishment of **REGIONAL ENERGY MARKET IN SOUTH EAST EUROPE** (*South East Europe Energy Market Process*)

## ■ DOCUMENTS

DOCUMENTS THAT ARE SIGNED FOR THE ESTABLISHMENT OF SOUTH EAST EUROPE ENERGY MARKET (**SEEEM**) :

- ▶ *Thessaloniki Declaration (10 September 1999)*
- ▶ *Athens Memorandum of Understanding (2 June 2000)*
- ▶ *Memorandum of Understanding on the Regional Electricity Market in South East Europe and its Integration into the European Union Internal Electricity Market (November 2002)*
- ▶ *Memorandum of Understanding on the Regional Energy Market in South East Europe and its integration into the European Community Internal Energy Market ( December 2003)*



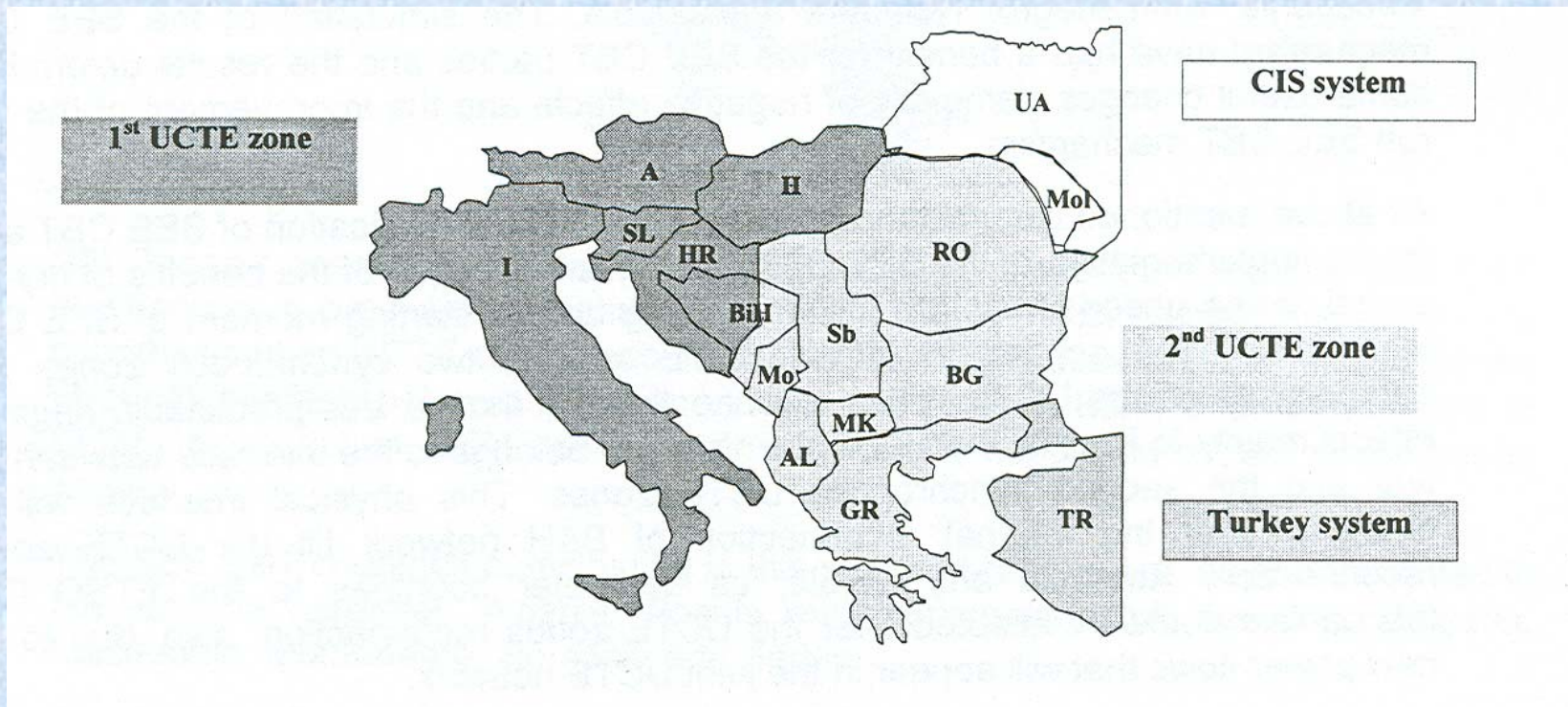
## ■ SIGNATORIES TO THE ATHENS MEMORANDA

### ▶ The signatories to the Athens Memoranda are:

● Albania ● Bosnia and Herzegovina ● Serbia and Montenegro ● Bulgaria ● Macedonia ● Greece ● Italy ● Turkey ● Croatia ● Romania ● Kosovo

### ▶ Non participating sponsors: *European Commission, Stability Pact*

### ▶ Observers: *Moldova, Slovenia, Austria and Hungary*





## ■ THE MAIN BENEFITS AND OBJECTIVES OF THE SEEEM

- Improve the balance between energy supply and demand as a crucial step to improve and sustain economic development in South Eastern Europe
- Optimize energy market and infrastructure developments over the broader scale of an integrated market (rather than at the level of each country)
- Attract Investment in Power generation and Transmission by providing a stable regulatory and market environment in a broader single energy market
- Comply with the vision of future integration into the EU
- Enhance security of supply, deliver energy service with improved quality and reliability, preserve economic competitiveness and affordability for consumers, comply with the environmental strategy of EU
- Establish an infrastructure and market based link between Western consumers and Eastern resources

**Final aim:** *To achieve a real integrated regional energy market, free of barriers and based on legal principles which will be ensured security of investment and trade and will be compatible with the Internal Energy Market of EU, enabling swift integration to it.*



# BODIES INVOLVED IN THE ATHENS PROCESS

- ▶ **The Ministerial Council-** *Takes place annually with participation of Ministers of Energy of the members countries and EU Commissioner for Energy and Transport, in order to take the strategic decisions and give directions to the Forum or to formally adopt or endorse conclusions of the Forum. The presidency of this Council rotates on a six monthly bases. The Ministerial Council is co-chaired by EU Commission and hosted by Greece.*
- ▶ **The Permanent High Level Working Group -** *Composed of representatives of the Ministers of Energy of the members countries and EU Commission is convened , when necessary, on the initiative of the Commission or the country holding the Presidency at the time, in order to prepare the Ministerial Council and ensure the follow-up of its decisions.*
- ▶ **The Athens Energy Regulation Forum (The Athens Forum) –** *Comprised of representatives of the EU Commission, governments, regulators and transmission system of the countries of South East Europe, the Council of European Energy Regulators (CEER), the European Transmission System Operators (ETSO), the Union for the Coordination of Transmission for Electricity (UCTE), representatives of donors, electricity and gas companies and consumers is hold a twice yearly in order to review progress in meeting the objectives of creating a regional energy market and agrees to attribute tasks to different bodies. The Forum is chaired by the European Commission.*
- ▶ **The Task Forces-** *Two Task Forces have been set up:*
  - **The South East Europe Energy Regulators Task Force (SEEER TF),** *under the umbrella of CEER and co-chaired by the Greek and Italian Regulators, and*
  - **The South East Europe Transmission System Operators Task Force (SEETSO TF),** *under umbrella of ETSO and co-chaired by the Italian and Greek TSO.*



## ► Athens Donors Group

*The Athens Donors Group is chaired (coordinated) by the European Commission, following a mandate given to the Commission by Stability Pact (Istanbul 2001). The present members of the Athens Donors Group are:*

- ♦ **European Commission** – *funding is provided for Secretariat Support to the Athens Process; Regional Electricity Market Action Plan; Regional Gas Market Project*
- ♦ **The World Bank** – *has put forward a **Study on the Optimization of Regional Investment Planning** that will be enable investors in South East Europe to pursue optimal decision, making and ensure the proper operation of REM.*
- ♦ **EDF-** *is to draft compatible **grid codes for SEEEM**.*
- ♦ **USAID-** *has funded a **Regional Transmission Planning project**, which identify 12 interconnections transit lines and 3 internal lines as priority of transmission investment. USAID also provides fund to **benchmark in depth the Regulatory capacity in South East Europe** ( Pierce Atwood provides activities in preparing Regulatory Benchmarking)*
- ♦ **CIDA-** *funds projects aiming to improving the skills of the staff involved in the electricity Market in South East Europe*
- ♦ **EBRD-** *is carrying out a study on **Power Sector Affordability in South East Europe** to identify the extent to which effective prices reflect costs for each category of customers.*
- ♦ **KfW (The German Development Bank)-** *provided funding to analyze the evolution of the demand and supply balance in the region and address energy efficiency issues*
- ♦ **Italy, France, Germany, Switzerland and Greece-***are actively working with the Commission*



# ATHENS MEMORANDA COMMITMENTS

- ♦ *Recognizing that Athens Memoranda provide non legal commitments with regard to parties, sponsors or observers, Participants of the Memoranda agree to endeavor establishment of an integrated regional energy market in South East Europe by 2005 , by progressively approximating the state policies with respect to the energy sector and particularly concerning the electricity and natural gas markets, to promote harmonized rules throughout the region.*
- ♦ *With regard to the regional electricity and natural gas market , the participants commit themselves to establish common rules for generation, transmission distribution and supply of electricity and natural gas, as well as common rules for storage of natural gas and adopt the rules relating to the organization and functioning of the electricity market and natural gas sector, access to the network, the criteria and procedures for granting authorization for construction an licenses for providing operations in energy sector as those laid down in Directive 2003/54/EC and Directive 2003/55/EC, and will provide time table to doing so.*
- ♦ *With regard to environmental safeguards , the participants committed to implement legislation such as Directive 87/337/EC (environmental impact assessment Directive, Directive 1999/32/EC on reduction of sulphur content of certain liquid fuels that is relevance for oil fired plant and Directive 2001/80/EC (Large combustion plants)*
- ♦ *Non EU-participants – committed themselves to bring the laws, regulations and administrative provisions in line with the Memoranda not later than July 1th 2005.*

*( continues )*



# COMMITMENTS WITH REGARD TO THE NATIONAL MARKET

*In order to achieve the regional approach, it is necessary to establish compatible national electricity and gas market in line with EU Directives, in which regard participants committed themselves to create ( where this not already has been done ) institutions for the operation of an integrated energy market, such as:*

- ♦ *A State Energy Authority- entrusted with development of energy policy*
- ♦ *A Regulatory Authority- that will have authority over the electricity and natural gas sector and will be responsible for continuously monitoring the market, in particular with respect to:*
  - *the level of competition*
  - *the rules on the management and allocation of interconnection capacity*
  - *any mechanisms to deal with congested capacity*
  - *the time taken by transmission and distribution undertakings to make connections an repairs*
  - *the publication of appropriate information by transmission operator*
  - *the effective unbundling of accounts (to avoid cross subsidies)*
  - *the terms, conditions and tariffs for connection new producers*
  - *the terms and conditions for connection and access to network (approving or proposing the methodologies)*
  - *the terms and conditions for the provision of balancing services (approving or proposing the methodologies)*
  - *the making decision in the event of inter-regional dispute*

*(continues...)*



# COMMITMENTS WITH REGARD TO THE NATIONAL MARKET

- ◆ **Transmission System Operators** - *by June 2003, shall have the following tasks:*
  - *ensuring the long-term ability of the system to meet reasonable demands for the transmission of electricity*
  - *contributing to security of supply through adequate transmission capacity and system reliability*
  - *managing energy flows on the system, taking into account exchanges with other interconnected systems*
  - *providing to the operator of any other system with which its system is interconnected sufficient information to ensure the secure and efficient operation*
  - *the non-discrimination as between system users*
  - *ensuring and applying minimum adopted criteria for independent management of the transmission system*
- ◆ **Distribution system operator**- *by January 2005 shall have the following tasks:*
  - *ensuring the long-term ability of the system to meet reasonable demands for the distribution of electricity*
  - *ensuring and applying minimum adopted criteria for independent management of the distribution system*
- ◆ **National Electricity and Natural Gas market action plans**- *will focus on:*
  - *comprehensive tariff reform*
  - *tariff schemes to allow smooth transition from existing market to an open market*
  - *approaches to ease the impact of reforms on vulnerable customers*
  - *the reduction of non-technical losses*
  - *an increase in energy efficiency to abate demand*
  - *ensure EU levels of diversity of supply in fuel mix*
  - *co-ordinated anti corruption measures and anti corruption monitoring system*



## COMMITMENTS WITH REGARD TO THE REGIONAL MARKET

- **Regional Electricity and Gas market action plan-** *The Permanent High Level Group (PHLG) will draw up the regional plan for electricity and gas using inputs provided to it by the national action plans.*
- **Regional Investment Priority-** *The participants, through PHLG, will define regional investment priority on non discriminatory, transparent and agreed criteria by the PHLG and the donors' group.*
- **Regional Trading Mechanisms-** *In a competitive regional energy market, transmission system operators should be compensated for costs incurred as a result of hosting cross border flows of electricity and natural gas on their networks by the operators of the transmission systems from which cross border flows originate and the system where those flows end*
- **Regional Energy Market Design-** *The participants will adopt a strategy, by June 2004, which lay down principles governing the market, the intermediate steps and the timetable to achieve it. Participants will endeavor to seek compatibility of national and regional market design.*



# **“ THE TIRANA DECLARATION” ON ESTABLISHING THE SOUTH EAST EUROPEAN REGULATORS BOARD FOR ELECTRICITY AND GAS**

*In order to facilitate consultation, co-ordination and co-operation between the regulatory bodies in Signatories of the Athens Memoranda, and between these bodies and European Commission, with a view to consolidated the regional market and ensuring the consistent application in all Signatories of the Athens Memoranda of EU Directives and Regulation, on December 2003, in Tirana is initiated establishment of “South East European Regulatory Board for Electricity and Gas”.*

**► Subject matter and activities-** *The Regulatory Board, composed of the heads or representatives of regulatory authorities, shall advise and assist on:*

- Ensuring a level playing field in the REM by monitoring and issuing recommendations to competent authorities and the EC*
- The supervision of the integration and compatibility of the regulatory approach trough-out the region*
- Monitoring issues of regional security of supply, recommending measures for improving and giving an opinion on the regional investment optimization plan*
- Drawing up common guidelines on market design*
- Monitoring the progress achieved with respect to infrastructure projects having regional dimension*
- Issuing recommendations as regards identifying the competent state regulator in cross border disputes, and issue an opinion in the event of a cross dispute if it is requested by the competent regulatory authority.*

The Tirana Declaration has been presented on 4<sup>th</sup> Athens forum on June 2004 and approved by PHLG. Formal adoption will be on the forthcoming Ministerial Council Session.



# STANDARD MARKET DESIGN FOR THE SOUTH EAST EUROPE REGIONAL ELECTRICITY MARKET

## ■ MARKET PARTICIPANTS

### ▶ 1. CUSTOMERS

- **Eligible** ( Free to choose Supplier; Some may be temporary under fixed-tariff regime; May act as self-suppliers; Not allowed trade elect..)
- **Non-eligible** (Bound to the fixed-tariff regime; Supplied under transparent and non discriminatory conditions)

### ▶ 2.PRODUCERS

- holding generation licenses
- They may : Conclude bilateral contract for physical delivery or financial arrangements with customers and suppliers; Submit offers to a Day-Ahead Market or participate in a balanced offer submitted to national TSO; Contract for future capacity with suppliers; Be subject of must-offer obligations to suppliers under fixed tariff regime; Contract for reserve/ancillary services with national TSO; Participate in inter-regional trade.

### ▶ 3. SUPPLIERS

- holding supply licenses, according to creditworthiness criteria
- They may: Carry out wholesale trading, retail supply and interregional trade; Supply customers under the free-tariff regime; Enter into bilateral contracts; Purchase from Day-Ahead Market; Participate in the national real- time balancing mechanisms
- **Regulated Suppliers** – ( holding license for supply customers under Regulated tariff regime; Are subject of regulation establishing in accordance with exact terms and condition special capacity obligation for the supply own customers; They must purchase a minimum amount of Day-Ahead Market )

(continues...)



## ■ MARKET PARTICIPANTS ( ... continued)

### ▶ 4. TRANSMISSION SYSTEM OPERATORS

- National entities who retain full control and responsibility for the operation of national transmission network and provide regulated third party access to the system users
  - Have full responsibility for balancing of the national system, the settlement of imbalances and the provision of ancillary services to all users
  - They can only trade and conclude contracts for the purposes of balancing, ancillary and reserve services
  - TSOs may operate more than one country ( subject of mutual agreement)
  - Participate in inter-TSO compensation mechanisms to handle cost of transit flows and costs of ancillary services and balancing
  - Must cooperate at regional level for the formation and operation of the Regional Market Operator
- Cooperate with UCTE and the relevant control centers for reliable and safe operation of the transmission grids

### ▶ 5. SOUTH EAST EUROPE MARKET OPERATOR (SEEMO)

- Regional private-law entity, established jointly by all national TSO's of the SEE region
- Operates the regional Day-Ahead wholesale market
- Collaborate with national TSO's for the linkages between the Day-Ahead market and the real-time dispatching and balancing as operated by national TSO's
- Responsible to carry out the financial settlement of wholesale transactions through day-ahead market participants



# MARKET ARRANGEMENTS

## ◆ 1. BILATERAL CONTRACTS WITH PHYSICAL DELIVERY

- *Freely concluded between producers and suppliers or eligible customers*
- *Subject to non discriminatory procedures for reservation of capacity through congested interconnectors*
- *Bilateral contract may be ex-post supervised*
- *Equivalent to balanced offers in the day-ahead market*
- *Contracts have to be declared in the regional day-ahead market*

## ◆ 2. REGULATED BILATERAL CONTRACTS ( FOR THE RFT REGIME)

- *Monitored and reviewed by the Regulators*
- *Treated as balanced offers to national TSO*
- *Subsidization should be avoided*
- *Provide assurance for the financial viability of Generators and Regulated Suppliers*

## ◆ 3. REGIONAL DAY-AHEAD MARKET

- *All power exchange transactions ( supply and demand) will be effected through regional day-ahead market*
  - *Bilateral contracts with physical delivery have to be declared ( balanced offers not contributing to the formation of the marginal price)*
  - *Regulated suppliers (or national TSO's) submit offers in the day- ahead market equal to their expected demand, balanced by contracted generators, and submit part of their demand to purchase from the market*
  - *The day-ahead market is operated by the SEEMO in close collaboration with all national TSO*
- (continues...)**



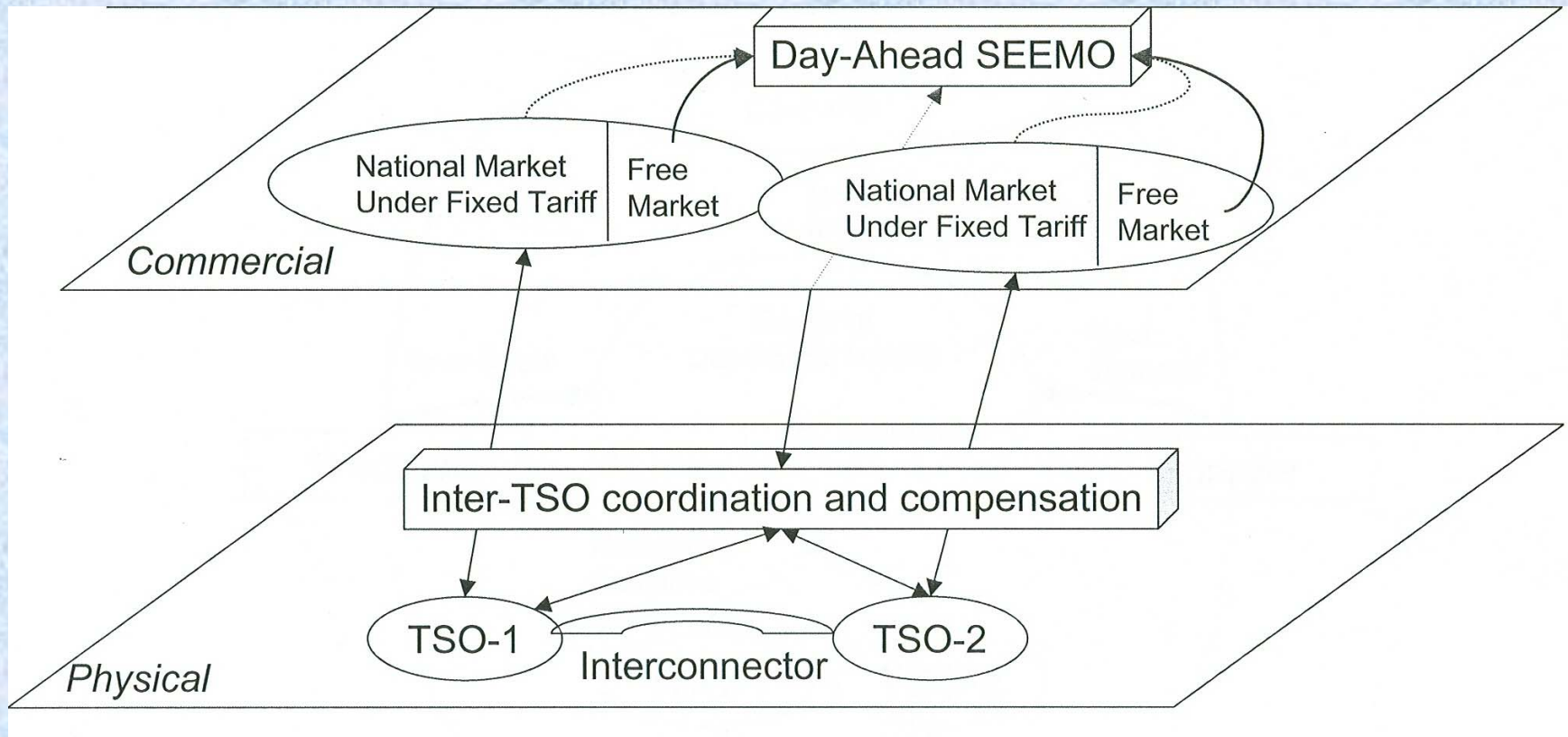
### ◆ 3. REGIONAL DAY-AHEAD MARKET (...continued)

( procedure – on the day ahead, SEEMO)

- 1. *Receives **demands** from TSO, suppliers and customers and **offers** from producers per Power Plant, Regulated suppliers or national TSO's (in the name of contracted producers for RFT regime) and Suppliers or consumers as negative offers*
- 2. ***Forms simple economic merit order for the next day**, according to market clearing price methodology after subtracting balanced offers, for the producers of the region*
- 3. *After the first closure of Day-Ahead Market, the SEEMO **evaluates the existence of possible congestion** on interconnections between countries*
- 4. ***A Single Clearing Price for the Region is defined , if there is no congestion**, by the marginal plant of the region*
- 5. ***If indication of congestion is evident, SEEMO proceeds with the market splitting** (defined the countries where single price can be applied, **proceeds with economic merit order for the offers to match demand for each country**, giving priority to countries with lowest prices-exporting countries, calculates zonal/country clearing price)*



# MARKET STRUCTURE





# MARKET STRUCTURE-SINGLE PRICE ZONE

