

## MISSION

---

THE CONTINUOUS, SECURE AND RELIABLE SUPPLY OF HIGH QUALITY ELECTRICITY TO CUSTOMERS IN SERBIA, NON-DISCRIMINATORY ACCESS TO THE TRANSMISSION SYSTEM AND PROVISION OF TRANSIT ACCORDING TO THE CROSS BORDER TRANSMISSION RULES

P U B L I C E N T E R P R I S E



E L E K T R O M R E Ź A S R B I J E

THE EFFICIENT COMPANY BUILT UPON A MODERN CONCEPT, ENSURING THE HIGH LEVEL OF SECURITY OF ELECTRICITY SUPPLY TO CONSUMERS AND DEVELOPMENT OF ELECTRICITY MARKET IN SERBIA

---

## VISION

# COMPANY ID

---

**COMPANY NAME:**

PUBLIC ENTERPRISE ELEKTROMREŽA SRBIJE - SERBIAN TRANSMISSION SYSTEM AND MARKET OPERATOR

**ABBREVIATION:** PE EMS

**FOUNDATION:** UNDER THE DECISION OF THE SERBIAN GOVERNMENT, PE EMS FUNCTIONS AS AN INDEPENDENT PUBLIC ENTERPRISE AS OF 1 JULY 2005.

**OWNERSHIP MIX:** 100% STATE-OWNED COMPANY

**REGISTRATION:** BY THE DECISION NO. BD 80469/2005 OF THE SERBIAN COMMERCIAL REGISTER AGENCY

**ADDRESS:** BELGRADE, KNEZA MILOŠA 11

**CONTACT DETAILS:**

**TELEPHONE NO.:** 011/33 30 700, 33 30 650

**E-MAIL:** kabinet@ems.rs, pr@ems.rs

**WEB:** www.ems.co.rs

**REGISTRATION NO.:** 2 0 0 5 4 1 8 2

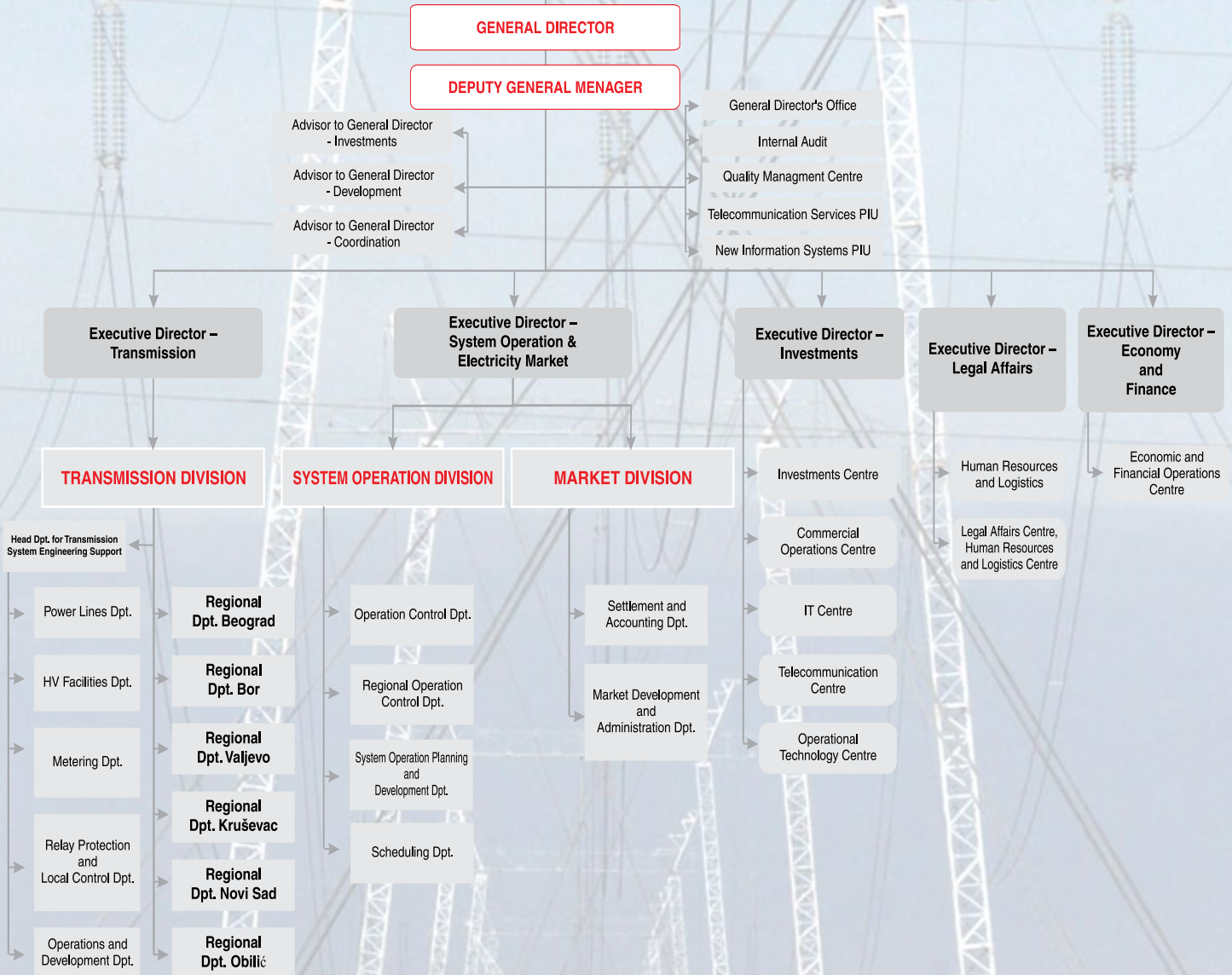
**TIN:** CP 1 0 3 9 2 1 6 6 1

**ACTIVITY:**

UNDER THE PE EMS STATUTE, THE ACTIVITIES CARRIED OUT BY THE COMPANY ARE AS FOLLOWS:

- TRANSMISSION OF TOTALLY AVAILABLE ELECTRICITY TO THE DISTRIBUTION AREAS, OR BIG INDUSTRIAL CONSUMERS,
- TRANSMISSION SYSTEM OPERATION
- ORGANISING ELECTRICITY MARKET
- ELECTRICITY TRADING FOR CARRYING OUT ANCILLARY SERVICES
- RESEARCH AND DEVELOPMENT
- DESIGN, CONSTRUCTION, MAINTENANCE AND UTILISATION OF NETWORKS WITHIN THE TRANSMISSION SYSTEM AND POWER FACILITIES AND OTHER ENERGY FACILITIES,
- DESIGN, CONSTRUCTION MAINTENANCE AND UTILISATION OF TELECOMMUNICATION FACILITIES AND DEVICES,
- TECHNICAL TESTING AND ANALYSIS
- ENGINEERING
- OTHER ACTIVITIES THAT CONTRIBUTE TO A BETTER IMPLEMENTATION OF ENERGY ACTIVITIES
- FOREIGN TRADE OPERATIONS INVOLVE:
  - TECHNICAL AND COMMERCIAL SERVICES IN ELECTRICITY TRADING, EXCHANGE AND TRANSIT
  - INTERMEDIATION AND REPRESENTATION IN COMMODITY AND SERVICES TRADING
  - CARRYING OUT INVESTMENT WORKS ABROAD AND HANDOVER OF INVESTMENT WORKS TO THE FOREIGN PERSON
  - LOCALLY TELECOMMUNICATION SERVICES
  - IMPORT/EXPORT QUALITY AND QUANTITY CONTROL SERVICES
  - SCIENTIFIC RESEARCH AND R&D SERVICES AND SERVICE OF INFORMATION AND KNOWLEDGE PROVISION AND USE IN THE INDUSTRY AND SCIENCE
  - ATTESTATION SERVICES AND OTHER SERVICES IN FOREIGN TRADE MATTERS WITHIN THE REGISTERED ACTIVITIES,
  - CONSULTING
  - ENGINEERING SERVICES

# PE EMS ORGANISATIONAL STRUCTURE



# ORGANISATION UNITS

## THE COMPANY CARRIES OUT ITS CORE ACTIVITIES WITHIN THREE DIVISIONS:

- TRANSMISSION DIVISION – CARRIES OUT BUSINESSES THAT CONCERN ELECTRICITY TRANSMISSION
- SYSTEM OPERATION DIVISION – CARRIES OUT BUSINESSES THAT CONCERN THE ACTIVITY OF TRANSMISSION SYSTEM OPERATION AND ELECTRICITY TRADING FOR CARRYING OUT THE ANCILLARY SERVICES.
- MARKET DIVISION – CARRIES OUT THE ACTIVITY OF ELECTRICITY MARKET ORGANISATION AND DEVELOPMENT.



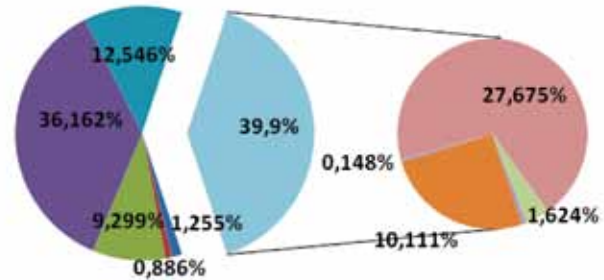
CORPORATE BUSINESSES IN THE COMPANY ARE ORGANISED WITHIN EIGHT CENTRES. THE BUSINESSES OF THE GENERAL DIRECTOR'S OFFICE AND INTERNAL AUDIT UNITS ARE UNDER DIRECT JURISDICTION OF THE GENERAL DIRECTOR.



## COMPANY INTERNAL ORGANISATION IS BASED ON THE PRINCIPLES OF:

- FUNCTIONAL WORK DISTRIBUTION AND PROVISION OF ALL CONDITIONS FOR EFFICIENT PERFORMANCE OF DETERMINED ACTIVITIES IN THE COMPANY
- EFFICIENT WORK PROCESS MANAGEMENT AIMING TO BEST BUSINESS RESULTS OF THE COMPANY
- PROTECTION AND IMPROVEMENT OF ENVIRONMENTAL AND WORK CONDITIONS AND WORK SAFETY
- INDEPENDANCE IN DECISION MAKING AND DIRECT RESPONSIBILITY FOR ORGANISING AND CONDUCTING WORKS WITHIN THE DETERMINED SCOPE OF WORK.

## QUALIFICATION STRUCTURE



- Unskilled / I
- Semi-skilled/II/elementary school degree
- Skilled / III
- Secondary School Degree - IV
- High-skilled / V
- College degree - VI
- University degree - VII - 1-3
- University degree - VII 1-5
- MSc, MA - VII-I
- PhD - VIII

**PE EMS NUMBER OF EMPLOYEES: 1,355.**

QUALIFICATION STRUCTURE OF THE PE EMS EMPLOYEES INDICATES DOMINANT PARTICIPATION OF HIGHER CATEGORIES OF COMPETENCES - 40%.

## PE EMS TRANSMISSION SYSTEM FACILITIES

TRANSMISSION SYSTEM POWER FACILITIES WHICH ARE MANAGED, OPERATED, MAINTAINED AND INVESTED BY PE EMS ARE SUBSTATIONS AND OVERHEAD LINES (400kV, 220kV, 110kV VOLTAGE LEVELS).



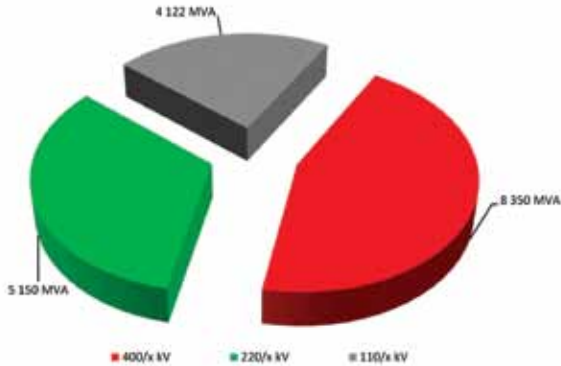
TRANSMISSION ACTIVITY IS CARRIED OUT BY TRANSMISSION DIVISION COVERING THE SERBIAN TERRITORY WITH ITS SIX REGIONAL DEPARTMENTS LOCATED IN BELGRADE, BOR, VALJEVO, KRUSHEVAC, NOVI SAD AND OBILIC.



IN ADDITION TO THE NATIONAL CONTROL CENTRE (NCC), THE SYSTEM OPERATION ACTIVITY IS CARRIED OUT ALSO BY 5 REGIONAL CONTROL CENTRES (RCCS), WITH THE PURPOSE OF AS EFFICIENT AS POSSIBLE FUNCTIONING OF THE SERBIAN TRANSMISSION SYSTEM

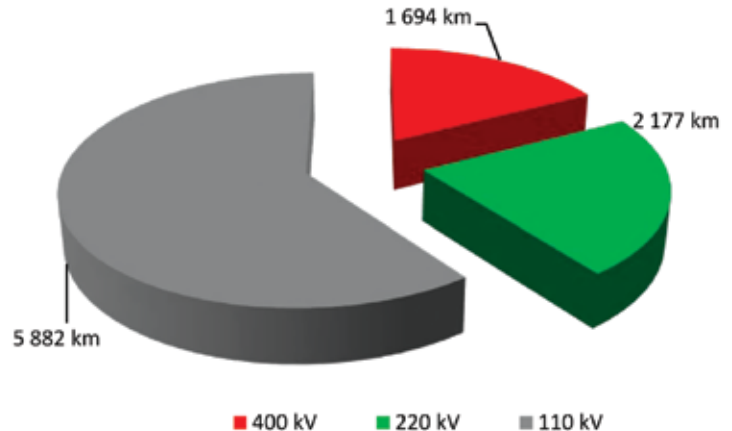
## SUBSTATIONS (SS)

PE EMS MANAGES 95 SUBSTATION AND 187 TRANSFORMERS,  
TOTAL INSTALLED CAPACITY 18,622 MVA.



## OVERHEAD LINE (OHL) NETWORK

PE EMS TOTAL OHL NETWORK LENGTH OF DIFFERENT  
VOLTAGE LEVELS (400kV, 220kV, 110kV) AMOUNTS TO  
9,997.98 km.



# TRANSMISSION SYSTEM MAP

IN THE PERIOD 2005-2010 PE EMS STARTED WITH INTENSIVE DEVELOPMENT, NAMELY CONSTRUCTION OF NEW TRANSMISSION SYSTEM FACILITIES AND RECONSTRUCTION, REHABILITATION OF OLD ONES. THE ONES OF SPECIAL IMPORTANCE ARE AS FOLLOWS:

- CONSTRUCTION OF SS 400/110 kV SOMBOR 3
- CONSTRUCTION OF SS 400/110 kV JAGODINA 4
- CONSTRUCTION OF OHL 400 kV SS SREMSKA MITROVICA 2 – SS UGLJEVIK (BOSNIA AND HERZEGOVINA)
- CONSTRUCTION OF OHL 400 kV SS SUBOTICA 3 – SS SOMBOR 3
- RECONSTRUCTION OF SS BELGRADE 8
- RECONSTRUCTION SS NOVI SAD 3
- RECONSTRUCTION SS NIŠ 2
- RECONSTRUCTION OF SS PANČEVO 2
- CONSTRUCTION OF OHL 400 kV SS NIŠ 2 – SS LESKOVAC 2
- CONSTRUCTION OF OHL 110 kV SS MAČVANSKA MITROVICA – SS BOGATIĆ
- CONSTRUCTION OF OHL 110 kV SS MAČVANSKA MITROVICA – SS SREMSKA MITROVICA 2
- RECONSTRUCTION OF SS LESKOVAC 2
- RECONSTRUCTION OF SS BAJINA BAŠTA
- RECONSTRUCTION OF SS BEOGRAD 5
- RECONSTRUCTION OF SS OBRENOVAC

DEVELOPMENT OF A TRANSMISSION SYSTEM IS AN ACTIVITY THAT REQUIRES CONSTANT STUDIOUS WORK, HUGE HUMAN AND MATERIAL RESOURCES AS WELL AS INTENSIVE CO-OPERATION WITH TRANSMISSION SYSTEM USERS, RELEVANT INSTITUTIONS AND NEIGHBOURING TRANSMISSION SYSTEM OPERATORS.

WHAT IS SET AS PRIORITY OF FURTHER DEVELOPMENT OF 400KV TRANSMISSION NETWORK IS THE CONSTRUCTION OF SS 400/110KV BEOGRAD 20, INSTALLED CAPACITY 2x300 MVA, WITHOUT OF WHICH THERE WILL BE NO SECURE SUPPLY OF CENTRAL ZONES OF THE CITY OF BELGRADE. THE CONSTRUCTION OF OVERHEAD LINE 400KV SS KRAGUJEVAC 2 – SS KRALJEVO 3 IS ALSO IMPORTANT, BECAUSE IT WILL INCREASE THE SECURITY OF THE CONNECTION POINT (NODE) SS BAJINA BAŠTA AND SS NIŠ 2, AS WELL AS THE SECURITY OF THE ENTIRE 220KV NETWORK LOCATED BETWEEN THESE TWO TRANSMISSION FACILITIES. CONSTRUCTION OF OHL 400KV SS LESKOVAC 2 – SS VRANJE - BORDER OF THE FYR MACEDONIA (INTRODUCTION OF THE OHL IN SS ŠTIP ON MACEDONIAN SIDE) WILL SOLVE THE ISSUE OF SECURITY OF OPERATION, WILL IMPROVE VOLTAGE CONDITIONS AND RELIABILITY OF ELECTRICITY SUPPLY IN THE REGION OF THE SOUTHEAST SERBIA, AND ALSO WILL INCREASE ELECTRICITY TRANSITS THROUGH OUR SYSTEM, RESULTING IN HIGHER INCOMES FOR EMS WITHIN ITC (INTER TSO COMPENSATION) MECHANISM IN THE FUTURE.

DEVELOPMENT PLAN FOR ACCOMPANYING TRANSMISSION SYSTEM INFRASTRUCTURE WITH EMPHASIS ON OPTICAL TRANSMISSION SYSTEM ENVISIONS A CONNECTION OF ALL TRANSMISSION FACILITIES, POWER PLANTS, AND PE EMS CONTROL CENTRES AND DISTRIBUTION SYSTEM OPERATORS WITH OPTICAL SYSTEM FOR DATA TRANSFER, AS WELL AS BUILDING LINKS TO NEIGHBOURING POWER SYSTEMS.

